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ABSTRACT

A statewide evaluation effort was conducted in Utah in the Spring 1970 to determine how well students in the public schools were attaining specified goals and objectives. A sample of students at all grade levels throughout the state were involved in the study. Data were gathered from test scores, school records, self-ratings, and ratings by teachers. The focus of the study was on student behavior rather than on school programs. Nineteen scales from the Student Information System were used in the study. These scales assessed: Cognitive Skills, Learning Habits, Psychomotor Creativity, Personal Adjustment, Social Admustment, Maturity, Flexibility, Reality, Athletic Ability, Positive Learning Attitude, Positive School Attitude, Positive Community Attitude, Positive Attitude Toward Others, Positive Attitude Toward Self as a Learner, Positive Self-Attitude, Self-Confidence, Healthy Aspirations, Optimistic Attitude, and Leadership. The data collected are provided in 27 tables. Appendix A to the report is a Summary of SIS Data Obtained for This Report, and Appendix B is a Position Paper on Evaluation. (DB)

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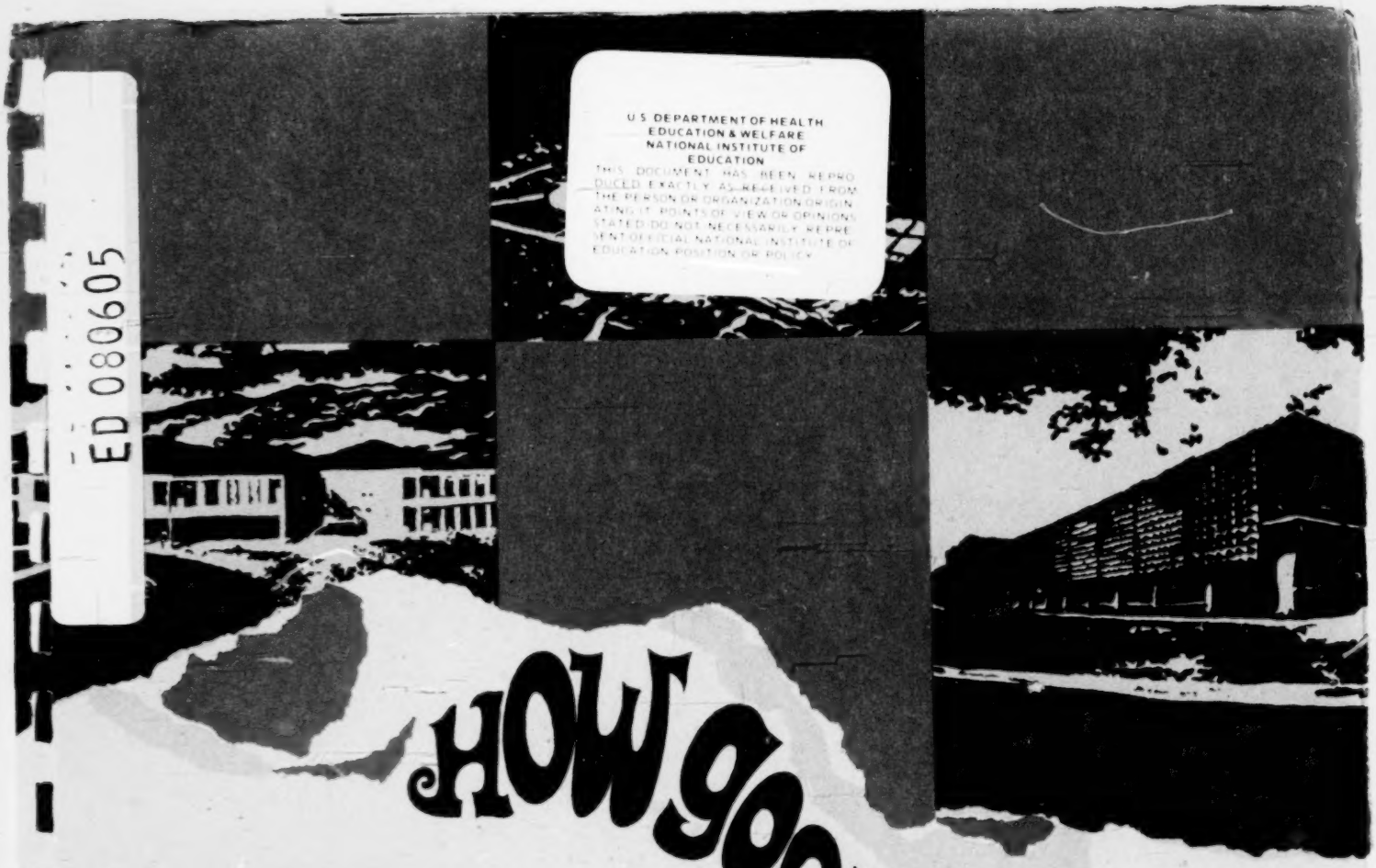

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HOW GOOD ARE UTAH PUBLIC SCHOOLS?

TM 003 124

UTAH STATE BOARD OF EDUCATION

1971

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February 1971

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FOREWORD

For several years personnel within the Office of the State Superintendent of Public Instruction have been putting concentrated efforts into the development of a systematic, continuous appraisal of our educational program. We are well aware of the complexities of the behavior we have need to evaluate. We know the solution is not simply the administration of academic achievement tests on a statewide basis. The goals of education are much broader than academic achievement and the development of the total person must be viewed if we want to determine our effectiveness. We are also aware of the complexity of the evaluation procedure. Sound evaluation requires adherence to highly technical operations which can be outlined only by properly trained personnel. Educators and laymen can submit questions to be answered, while the evaluator determines what can be answered and what steps to follow in pursuing the answers.

This report is one of the first products of the evaluation system we are developing. Some of the unique elements of the report are: (1) The viewing of a large number of student behaviors rather than assessing only academic achievement. (2) The evaluation is focused directly on student behaviors rather than on school programs. (3) The findings are based on information which was gathered through validated instruments. (4) For the most part, all information can be interrelated to handle complex questions, such as: "What are the school attitudes of students with low academic achievement?" (5) The information was gathered and analyzed through the use of the latest data processing technology. (6) The evaluation is ongoing to permit longitudinal and time studies, with information being readily accessible at any given time.

We will continue the development of this evaluation system with the intent of making possible the objective evaluation of educational programs according to the needs of local, district and state educators as well as those of concerned related agencies and individual citizens of the State.

This study was initiated under the general direction of Dr. Avard A. Rigby, Administrator, Division of Adult Education and Training, and Dr. H. Reese Anderson, Coordinator of Pupil Personnel Services. Later the project was transferred to the Planning Unit directed by Dr. Don K. Richards. This transfer was accompanied by an assignment to the Planning Unit to provide leadership in the development of a statewide evaluation system. Principle investigator was Dr. Bruce Wainwright.

A special committee assigned to help prepare this report included:

Reese Anderson - Coordinator, Pupil Personnel Services
Jim Chadwick - Coordinator, Title III, Research and Innovation
Jay Donaldson - Special Education Testing and Measurement, Special Education Section
Jennie Kearl - Media Coordinator - Curriculum, Instructional Media
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Walter Ulrich - Administrator, Vocational Education
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Lerue Winget - Deputy Superintendent, Office of Instructional Services
Kent Worthington - Coordinator, Research, Design and Evaluation, Research and Innovation

Julie Woodward assisted in the editing and writing of the report.
Jack Gillespie and his staff developed the graphics for the report.

Walter D. Talbot
State Superintendent of Public Instruction

HOW GOOD ARE UTAH PUBLIC SCHOOLS ABSTRACT

PURPOSE

This report is a summary of a statewide evaluation effort which was conducted in the Spring of 1970. The purpose of the evaluation was to determine how well the students in the Utah public schools were attaining specified goals and objectives. A sample of students through the State at all grade levels were involved in the study. Data were gathered from test scores, school records, self ratings by students and ratings of students by teachers. The focus of this study was on student behavior rather than on school programs. The intent was to look at the "product" desired rather than at the methods used.

The capacity to measure the attainment of student objectives will result in being able to determine the programs and activities which best help students attain the objectives. This report is an abstract of a more comprehensive document entitled "How Good Are Utah Public Schools" published in February 1971.

INTELLECTUAL DEVELOPMENT

For years, schools have emphasized the importance of the development of intellectual capacities. This area of growth and development will always be crucial in preparing a child for adulthood.

FINDINGS

Utah students score slightly above national norms in all areas of academic achievement except language and reading.

The area of highest academic achievement for students in Utah schools is mathematics followed by science, social studies, language, and reading.

The relative position of Utah students continues to be above the national average and is improving in all areas except language. The greatest increase in previous years has been in the area of mathematics followed by reading, science, social studies, and language.

Students in lower ability levels are achieving as well as, or better than, their expectancy. There is some evidence that students with higher intellectual abilities in general are not achieving as well as they should.

The students in Advanced Placement are showing slightly less achievement than national averages; however, in all areas except biology, the trend through the past few years is for Utah students to score closer to national norms.

Utah ranks ninth in the nation in percent of registrants passing the Armed Forces Qualifying Test (AFQT). Although an increasing percent are passing the AFQT in Utah, this same trend is true for the other states. Utah's national ranking has dropped since the 1965-68 period.

In 1969-70, student scores on the American College Testing (ACT) program increased significantly in each area over the 1965-66 scores. In 1965-66 Utah students scored below national norms in each area, and in 1969-70 they scored above the norms in each area. The greatest increase was in the area of mathematics, followed by natural science, English, and social studies in that order. The composite score on ACT for Utah students for 1969-70 was at the national percentile of 60.

SOCIAL AND EMOTIONAL DEVELOPMENT

The ability of a student to get along successfully in society is of major concern to the schools. Students' social and emotional development will affect themselves, the homes from which they come, and society.

Until recently, there has been no meaningful way to measure social and emotional development on a statewide basis. This evaluation has utilized some validated scales which measure various aspects of the students' social and emotional development.

FINDINGS

Both elementary and secondary students rated themselves higher in non-academic self concept areas than in academic areas.

Elementary students rated themselves highest in learning skills and lowest in social adjustment. The reverse is true for secondary students.

Most secondary students expressed an interest in doing volunteer work such as helping younger children, helping the deprived, doing office work, and other acceptable social services.

Teachers rated students higher in social and emotional areas than scholastic areas.

Students rated themselves lower in social and emotional areas than did teachers.

HEALTH AND PHYSICAL DEVELOPMENT

A student's health is important to his personal welfare and often af-

fects his intellectual, social, and emotional growth and development.

FINDINGS

The most common student problem reported by teachers is hyperactivity (restlessness), followed by personal cleanliness, coordination, visual problems, hearing problems, and clumsiness.

The most common health problems reported by students are nervousness, visual problems, allergies, weight problems, and headaches.

ATTITUDE TOWARD LEARNING

Unless a student has healthy attitudes toward learning and the development of skills, he will not develop his potential in these areas. Though the educational system cannot significantly increase the inherent abilities of students, programs and personnel can help nurture attitudes and feelings which increase the likelihood that students will attain their potential.

FINDINGS

Students generally rate themselves higher in learning attitudes than teachers.

Elementary students rate themselves higher in learning attitudes than do secondary students.

At least half of the students in the State of Utah have poor attitudes toward learning.

SPECIAL STUDIES

1. Statewide Reading Survey of Third Graders

   In each of the tests, Utah third graders score slightly above national norms; however, many students scored significantly below national norms.

2. Drug Attitudes and Proneness

   Drug users generally have unsatisfactory relations with adults, are poorly disciplined, have negative attitudes toward school, have limited participation in school activities and have inferior self concepts. Scales have been developed to measure drug proneness and drug attitudes. One-third of the students in the State score as high on the drug proneness scale as drug users. This should not be interpreted to mean these students are using drugs, but simply that they might have a proneness or susceptibility to the use of drugs.

3. Vocational Preparation

Characteristics of students who were well prepared and poorly prepared for success on the job were ascertained in a study. Vocational preparation was reflected by teacher ratings and by student self ratings of characteristics such as dependability, ambition, obedience, anxiety, participation in school activities, flexibility, and the ability to get along with others. Scales were also developed to measure work attitudes and habits. Approximately 15% of the students in Utah scored as low in vocational preparation as the study sample of students who were identified as "poorly prepared".

4. Students with Special Problems

A statewide study provided descriptive and baseline, biographic, cognitive, and affective data on special education students. This study included students with learning disabilities and emotional problems as well as speech, hearing, and motor handicaps. These students generally scored lower in aggressive behavior and intellectual abilities. The major health problems identified were hyperactivity, poor coordination, and sensory difficulties.

5. Special Ethnic Groups

The achievements and characteristics of Black, Mexican-American, and Indian students were compared with State averages. Minority students ranked below State norms in cognitive skills, and above State norms in social adjustment and maturity. Black students were above State norms in psychomotor creativity.

6. Students from Low Income Families

These students scored below State norms in all areas except social adjustment. The greatest discrepancy between their scores and State norms was in study skills. Low income students in the Title I program scored closer to State norms in 1970 than in 1969.

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INTRODUCTION

How successful is Utah public education? Determination of this success is accomplished through evaluation. Evaluation is a highly technical and exact procedure which can be successful only to the extent that objectives and program variables have been stated in a measurable way. More sophisticated kinds of evaluation can determine which techniques are most successful in achieving stated objectives and how they can be attained more quickly and economically. This study represents one of the first steps in the development of an evaluation system to determine how well the students in the Utah public schools are attaining stated objectives in education. Evaluation efforts are handicapped because the goals of education have not been defined in measurable terms. This study is a limited effort to answer the following two basic questions:

1. How well are the stated objectives of the system being achieved?

2. Are students achieving these objectives at a higher level than they were four years ago as reported in the publication "How Good Are Utah Public Schools."

Goals of Education in Utah

The first step in the evaluation process is, of course, identification of the goals for Utah's public schools. These were obtained from three sources. The first is the "Aims, Purposes, Objectives and Philosophy of Education in the State of Utah," a statement adopted by the State Course of Study Committee in 1956.[1] It provided the framework from which the following eight general objectives for education in Utah were drawn:

1. Developing an appreciation for and performing responsibilities of citizenship.

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[1]This document was prepared by representatives from local school districts and the Office of the State Superintendent of Public Instruction staff. It was done in response to a law passed by the Utah Legislature that year requiring the Committee to formulate a statement "as a guide for the public schools of Utah consistent with constitutional and legislative mandates."

2. Developing attitudes and competencies which facilitate learning.

3. Achieving and maintaining physical and mental health.

4. Developing vocational competence and realizing economic responsibilities.

5. Developing understanding of man's environment and of the conservation of resources.

6. Improving human relations and family living.

7. Achieving moral and spiritual values.

8. Satisfying aesthetic needs and enjoying wholesome leisure.

The second source of goals is the Designing Education for the Future (DEF) project.[2] This more recent work involved broad representation from educators and laymen throughout the State. The statement is summarized as follows:

The primary task of public education is to provide an environment conducive to changing behavior on the part of each learner and motivating him to achieve the following objectives:

1. The inquiring mind as exemplified by a continuing desire for knowledge, a continuing interest in current problems and the habit of weighing alternatives and creatively applying them to the solution of these problems.

2. A knowledge of fundamental concepts about the world environment and man's relationship to it.

3. Proficiency in the use of modes of communication.

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[2]This project was a result of an eight-state research project to strengthen departments of education in planning for the schools of the 1980's. It was funded under the Elementary and Secondary Education Act, Title V, Section 505 of Public Law 89-10. The project lasted from January 1, 1965 through June 30, 1969, and was designed to assist the eight participating states (including Utah) to anticipate changes which were likely to occur in the next 10 or 15 years. The formal report was published in 1970.

4. A dedication to the task of improving America, striving for solutions to its continuing domestic and world problems and upgrading the lives of all people.

5. Maintenance of health, achievement of a high level of personal fitness and the acquisition of wholesome leisure skills.

6. An emotionally stable person.

7. A moral standard of behavior.

8. A knowledge of inter-relationships of nature and the cultural arts and the ability to utilize all of the senses both to make aesthetic judgments about the total environment and to enrich his own life.

9. Information and guidance for wise occupational choice and opportunities for adequate career development.

The State Course of Study Committee is now considering adoption of these DEF objectives as the Utah statement of aims, purposes, objectives and philosophy of education required by law. As this study is being conducted, a committee of professional educators from the Office of the State Superintendent of Public Instruction is considering incorporating the DEF objectives into broader categories of human development. These could become the official educational goals for the State if approved by the Committee. Briefly, this derived list of goals includes:

1. Aesthetic development.

2. Emotional development.

3. Adjustment to the environment.

4. Intellectual development.

5. Physical development.

6. Productivity.

7. Social development.

8. Moral-ethical development.

Because these represent the latest thinking in terms of goals of education in Utah, they were selected as the framework for presenting the findings of this report. Ideally, the goals should have been converted into measurable objectives and the evaluation should be based on those objectives. It is obviously difficult to conduct evaluation in the absence of measurable objectives as guidelines. Evaluation efforts such as this project will be restricted until more measurable objectives have been outlined. The approach followed in this evaluation was to use measures of student behaviors which a large number of educators have defined as important measures of educational success.

Previous Evaluation

"How Good Are Utah Public Schools," the first major step in judging the quality of Utah educational programs, was published in 1967. It reported a project that was limited to measuring the academic achievements of Utah students. Included were results of college entrance examinations (American College Tests), comparative data on drop-out studies and the holding power of Utah schools, Advanced Placement test data, the Armed Forces Qualifying Test information, facts on school accreditations plus standardized achievement test results. The tests were administered by Utah school districts in 1965-66. The project was considered a first step in a continuing appraisal of Utah's schools.

This report is a follow-up of "How Good Are Utah Public Schools," but has been expanded to include broader measures of educational success such as social and emotional development, work attitudes and habits, students' health, attitudes toward learning, and characteristics or needs of students using drugs. Other areas covered by this report are students with various educational handicaps, students of diversified ethnic origins, etc.

Even though this report deals with a large number of measures of student behavior, it is still not an exhaustive effort evaluating the success of each stated educational objective. A proposed statewide evaluation system, however, has been developed by the Office of the State Superintendent of Public Instruction (see Appendix A). Such a system will more comprehensively show Utah citizens how the schools are attaining each of the State's educational objectives. This study is considered a first step in launching this more comprehensive system of evaluation.

One limitation of this study is that much of the information reported was gathered for the first time on a statewide basis and therefore is descriptive rather than evaluative. Plans are to continue this gathering

of information on a longitudinal basis so that students are followed up in order to periodically re-evaluate as well as to determine long-term effects of the educational program. This will permit the kind of extensive evaluation toward which the Office of the State Superintendent of Public Instruction is working.

SECTION I - DESIGN

In order to determine how well Utah schools are achieving their goals, data obtained through the following sources were analyzed:

1. Vocational studies.
2. American College Test scores.
3. Accreditation information.
4. Armed Forces Qualifying Test scores.
5. Advanced Placement information.
6. Standardized tests.
7. Measures obtained through the use of the Student Information System (SIS).

Where possible, data were gathered which would permit comparison with the earlier "How Good Are Utah Public Schools" study. Much of the information in this study has no counterpart in the earlier report.

Sampling and Instruments:

SIS data from students in school and from teachers were gathered during April and May, 1970. Follow-up data from students who graduated in 1965 were gathered in September and October, 1970.

Each school district in the State was invited to participate in the study. Sampling included the 2nd, 3rd, 4th, 6th, 8th and 10th grades. (Data for the 12th grade students had been obtained previously and are available upon request.) All students in these grades whose birthdays fell on the first through the sixth day of any month were selected. This provided approximately a 20% sample of these grades. Some of the larger districts were given a list of randomly selected schools to reduce the sample size. In all cases, random selection was used.

In addition to the general random sample, all students participating in special education programs in Utah were sampled according to the day of month they were born. All students born between the 1st and 6th of any month were sampled. Also included were all students in the sampled schools who were in grades 1, 3, 5, 7, 9, and 11 who were students

from low income families, as well as students who belonged to Black, Mexican-American or Indian ethnic groups.

For the vocational study, 30 students were identified by their vocational education teachers as being best prepared for work in terms of attitudes and habits. An additional 30 students were sampled who were identified as being least prepared for work in terms of work attitudes and habits. These 120 students were rated by the teachers on the Student Information System (SIS) check lists. In addition, each of the selected students completed the SIS Student Questionnaire Level II (SQII).

A separate drug study involved a sample of 60 known drug users who were asked to fill out the SQII form. The focus of this extensive study is directly on student behavior rather than on program characteristics.

For the academic achievement data, all Utah students taking the American College Tests (ACT) in 1969-70 were used for the study. Data from all examinees taking the Armed Forces Qualifying Test during 1969 have been used. Achievement test scores plus IQ test scores were collected through the use of SIS test forms. The SIS test analysis component was used to convert all achievement and ability test scores into a standard T score[3] format which permitted the comparison of different kinds of tests. A T score of 50 would indicate that a student is scoring at the national norm whether the test is measuring achievement or ability (IQ).

One serious problem is that the different tests are measuring different types of achievement and ability and are based on different theory. Therefore, caution must be used when interpreting the results. With both achievement and IQ or aptitude tests, students are measured in terms of the national norm of the standardized test. The total T score shows how a given student score compared to national norms on whichever test was administered. The system provides for separate analyses to look at the summary of scores for each of the different tests.

Also included in this report is a summary of a statewide reading survey conducted in the spring of 1970.

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[3]A standard T score has a mean (average) of 50 and a standard deviation of 10.

Three Student Information System tests were used to gather data from students:

1. The Student Questionnaire Level I (SQI) for elementary students.

2. The Student Questionnaire Level II (SQII) for students in junior and senior high schools.

3. The Student Questionnaire Level III (SQIII) for young people who have left the school program.

Three SIS instruments were used to gather student data from teacher ratings:

1. The Student Achievement Check List (SACL) which measures students' various achievement factors based on teacher ratings.

2. The Student Problem Check List (SPCL) which measures a number of learning-related problems.

3. The Student Behavior Check List (SBCL) which measures diversified behavioral characteristics of students.

Nineteen scales from the Student Information System were used for the study. Nine of these scales were derived through a factor analysis of teacher ratings and student self ratings. These nine scales are:

1. Cognitive Skills. This is a measure of basic learning aptitudes and highly correlates with aptitude measures. This trait includes general comprehension, reading, speaking and general learning skills.

2. Learning Habits. This is a measure of a student's affective attitudes toward learning as demonstrated by habits and skills such as concentration, organization, dependability, willingness, etc.

3. Psycho-motor Creativity. This factor includes originality and the ability to express creativity in a physical manner.

4. Personal Adjustment. This includes orderliness, pleasantness, good judgment, happiness, etc.

5. Social Adjustment. This includes confidence, leadership, the degree to which the student is well-liked, has concern for others, etc.

6. Maturity. This includes the absence of tattling, yelling, fighting, losing temper, etc.

7. Flexibility. This includes being free from such things as extreme sensitivity, stubbornness, unpredictability, an extreme need for praise, etc.

8. Reality. This includes absence of excessive crying and giggling, self-criticism, guilt feelings, etc.

9. Athletic Ability. This includes general activity in athletic events.

Five of the above factors (1, 2, 3, 5, and 6) were obtained through the use of SQI which was completed by students in grades 3 - 6. Details of the factor analysis and scaling techniques are available upon request.

Ten additional SIS scales reported in this publication were validated using other validation techniques. In general, the validation process went as follows: 1) The specific educational objectives were defined in measurable terms, 2) students were identified who manifested a high amount of the defined trait, 3) students were identified who manifested a low amount of the defined trait, 4) raters who had not been identified in the selection process were then asked to rate both groups of students on SIS items which had been selected on a priority basis to measure the defined objectives, 5) statistical analyses were then completed to determine how well each of the selected items discriminated between the two groups, 6) those items that discriminated best were selected to be included in the scales. The scales developed via this validation process were:

10. Positive Learning Attitude. This includes neatness, efficiency, organization, willingness, etc.

11. Positive School Attitude. This includes good attendance, general school attitudes, etc.

12. Positive Community Attitude. This includes pride in the community and civic affairs.

13. Positive Attitude Toward Others. This includes sharing, accepting from others, interacting freely with others, etc.

14. Positive Attitude Toward Self As A Learner. This includes academic, social, physical and personal development.

15. Positive Self Attitude. This includes being a person who is a contributor and has meaning or worth for others.

16. Self Confidence. This includes general confidence, relating well to others, participating in discussions, etc.

17. Healthy Aspirations. This includes persistence, orderliness, conscientiousness, general learning ability, etc.

18. Optimistic Attitude. This includes cooperation, a good sense of humor, happiness, etc.

19. Leadership. This includes cooperation, a good sense of humor, ability to lead others, etc.

In addition to these scales, data from individual SIS items were used to assess how well students were achieving the objectives of education.

SECTION II - FINDINGS

Basic biographic information about the students sampled will appear first in this section. In harmony with recent trends in education to humanize programs, these kinds of data are presented so that the sampled children can be seen as a number of individuals rather than a mass of students. This study attempted to look at different facets of student behavior rather than over-emphasizing academic skills.

Biographic Data of Elementary Students

About one-half of the elementary students have moved more than three times, while approximately a third of their classmates have not moved even twice.

The vast majority (90%) of the children live with both their mother and father. Another 7% live with only their mother, 1% with their father only, 1% with relatives and 1% with someone other than relatives.

More than three-fourths of the elementary students see a doctor about once a year. About one student in five sees a physician once a month, another 1% report weekly visits to a physician.

Half of the elementary students walk to school; 25% are bussed. One in ten rides to school in a car and a like number ride a bicycle.

Regarding homework, two-thirds of Utah elementary students say they do school work at home sometimes. One-fourth say they usually do studies at home while 5% say they do them at home every night. Only 4% report never doing school work at home. Two percent say that school work is too hard for them.

Thirty-seven percent of the elementary students say they know what they want to be when they grow up, almost as many (34%) say they think they know. Another 29% don't know what they want to do as their life's work.

The majority of Utah elementary students say they like school, 45% like school sometimes, and 4% report that they do not like school.

Biographic Data of Secondary Students

Most junior and senior high school students live with their natural parents. Eighty-seven percent report that their parents live together, 6% of parents are divorced, 1% are separated and in 5% of cases one or more

parent is deceased. Ninety percent have lived with one family only, 7% have lived with two families; and 3% have lived with three or more families.

Mobility of Utah families has affected most students. One-third have never moved, one-third have moved once or twice, and one-fifth have moved from three to five times and one-tenth have moved six to eight times.

Nine percent of the junior high and high school students said they liked school very much, 32% said they liked it, 49% said it was okay, 7% said they didn't like it and 3% said they did not like school at all. Thirty-eight percent of the students said they would definitely go to school if they didn't have to with 41% stating that they probably would attend, and another 21% said they would not go to school if it weren't required by law.

The majority of students reported that their homework was too hard, another 10% said that it was much too hard for them. Only 1% said it was too easy. Reflecting student feelings about relevance of homework, 12% said it was definitely useful, 72% said it was useful, 14% said it was not useful and 2% said it was definitely not useful.

Forty-five percent said they would either possibly or definitely like to see a counselor.

High school graduation was a definite goal for 72% of the students sampled. Most of the remainder would like to graduate while only 1% did not want a high school diploma. Eight percent reported having a brother or sister drop out of school. Four percent reported two or more dropouts in the family.

About one-third of the students in the State plan to move to Salt Lake City and live there permanently. Forty percent of the students plan to attend a four-year college. Two percent were planning to work without additional training. A trade-technical school was the aim of 12% and business school was the goal of 4% of the secondary students.[4]

The students were asked how often they participated in various extra-curricular activities. Their answers are listed in order of their frequency on Tables 1 and 2. Table 3 shows volunteer interest expressed by the secondary students.

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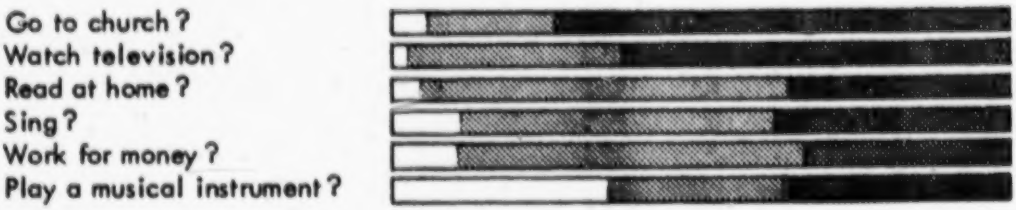
[4]These along with additional data are presented in tabular form in Appendix A.

Elementary students' participation in certain activities.

HOW OFTEN DO YOU...

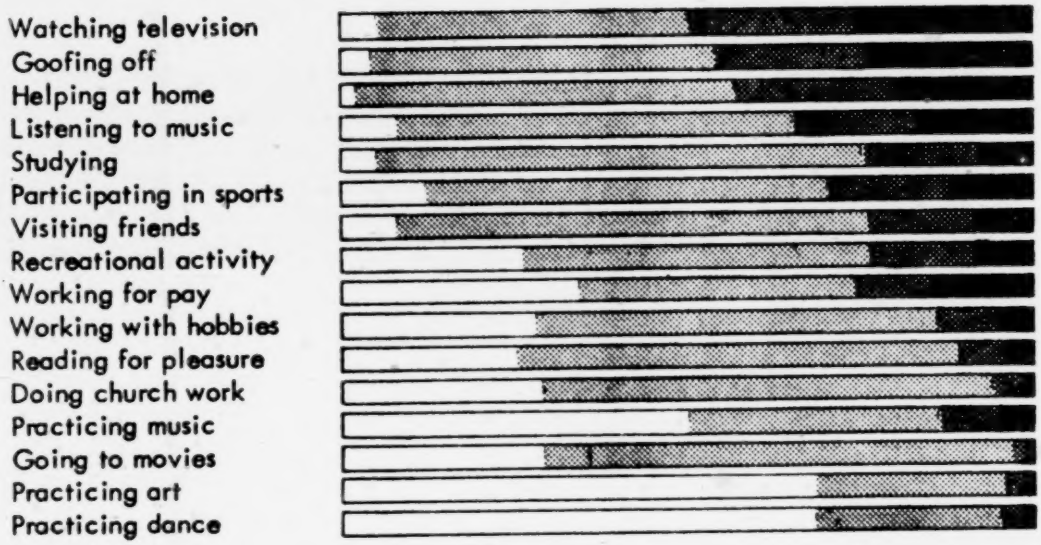


KEY = NEVER = SOMETIMES = OFTEN =

Elementary students were asked to rate how often they engaged in a few selected activities. There were three possible answers -- never, sometimes, and often. This chart shows the percentage of the students who answered "never", "sometimes", and "often" to each of the activities listed. The selected activities are ranked according to frequency of participation. Note that the table tells how often students participate in the activity, not necessarily how much they like or prefer it.

TABLE I

Secondary students' participation in certain activities.

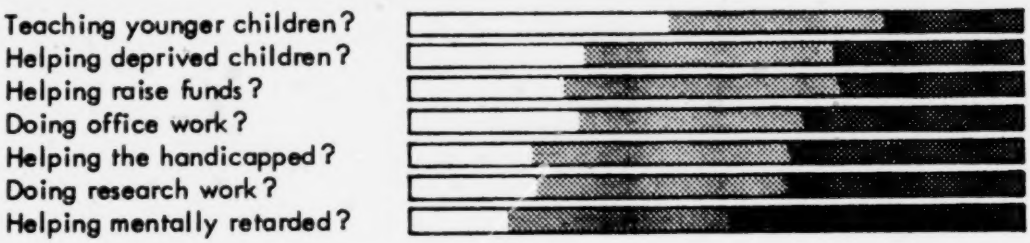


This table reports the percentage of time that secondary students participate in a wide variety of activities. Various portions of the bar show approximately what percent of the students spend 0 hours, 1-5 hours, 6-9 hours, and 10 or more hours each week in each activity. The activities are ranked from most to least frequent. Here again, it should be kept in mind that this indicates participation only, not particularly preference.

TABLE 2

Interest in volunteer work (secondary students).

WOULD YOU LIKE TO BE A
VOLUNTEER FOR AN
ORGANIZATION OR GROUP IN...



KEY = NO = POSSIBLY = YES =

This chart shows the interests students have in volunteer work. The bar shows what percentage of secondary students "had no interest", "were possibly interested", or "had definite interest" in doing various types of volunteer work. The kinds of volunteer work are ranked from most preferred to least preferred (as determined by the average preference of all secondary students who answered the questions).

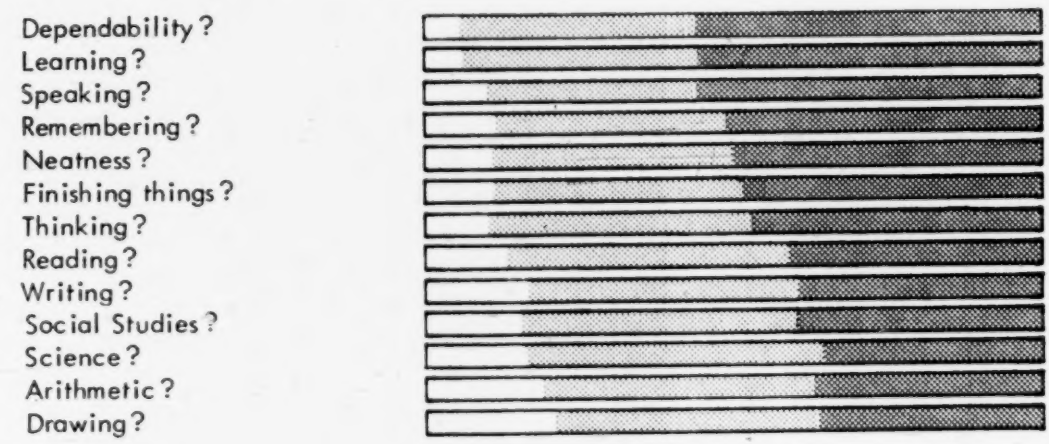
TABLE 3

The self-concept ratings describe how the students see themselves as compared to other children. One's academic self-concept is very important for two reasons: (1) the student who doesn't feel capable of learning will certainly be handicapped because of his attitude, and (2) some students who are having problems in this area might deny it. They might insist they are achieving as well as other children when actually they are not. The results of children comparing themselves to their classmates were ranked and are reported on Tables 4 and 5, with comparative teacher ratings in Table 6.

Physical problems of students according to self ratings are reported in Tables 7 and 8. Student problems measured by teacher ratings are provided in Table 9. Selected behavior characteristics self-rated by the students are ranked and reported in Tables 10 and 11. Similar behavior characteristics which were teacher-rated are ranked and reported in Table 12.

Academic self-concept of elementary students.

DO YOU THINK YOU ARE
EQUAL TO OTHER CHILDREN
IN...



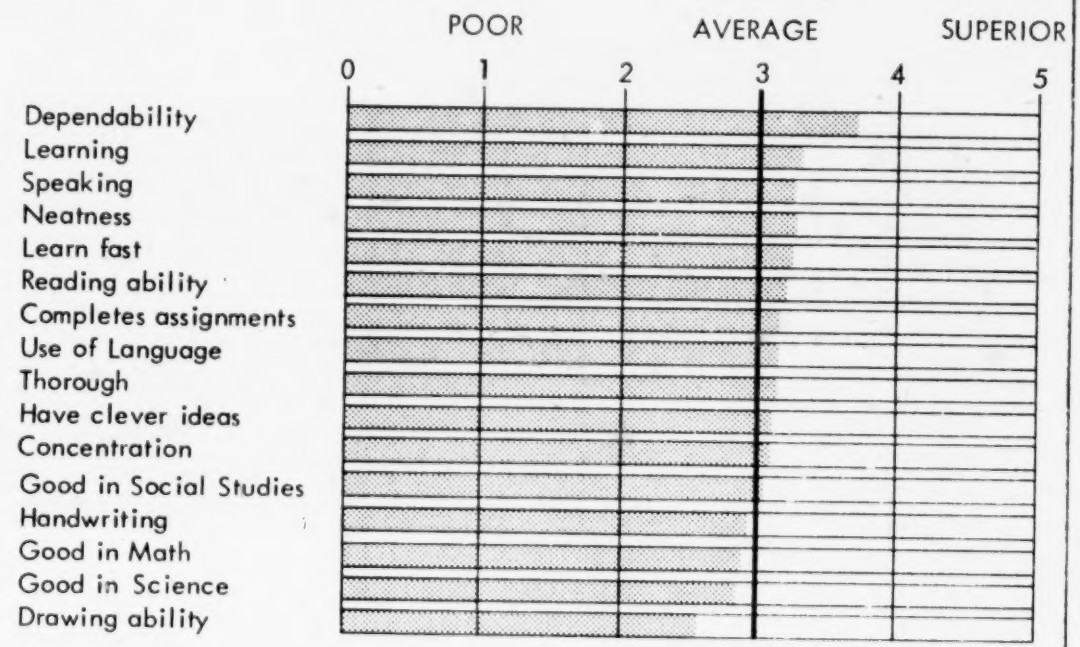
KEY = NO = MAYBE = YES =

This chart shows the academic self-concept of elementary students. Care must be taken to avoid misinterpretation of the information. The ratings given by each student are subjective comparisons of his own ability with his idea of the ability of others in his class or of his age for each question. This is not a measure of academic ability or achievement, but merely the student's opinion of himself as compared with others. The report is in terms of the percentage of students who answered each of the possible choices on each question, and responses are ranked from highest comparative self-concept to lowest.

TABLE 4

Academic self-concept of secondary students.

RATE YOURSELF AS COMPARED WITH OTHER STUDENTS IN THESE AREAS.

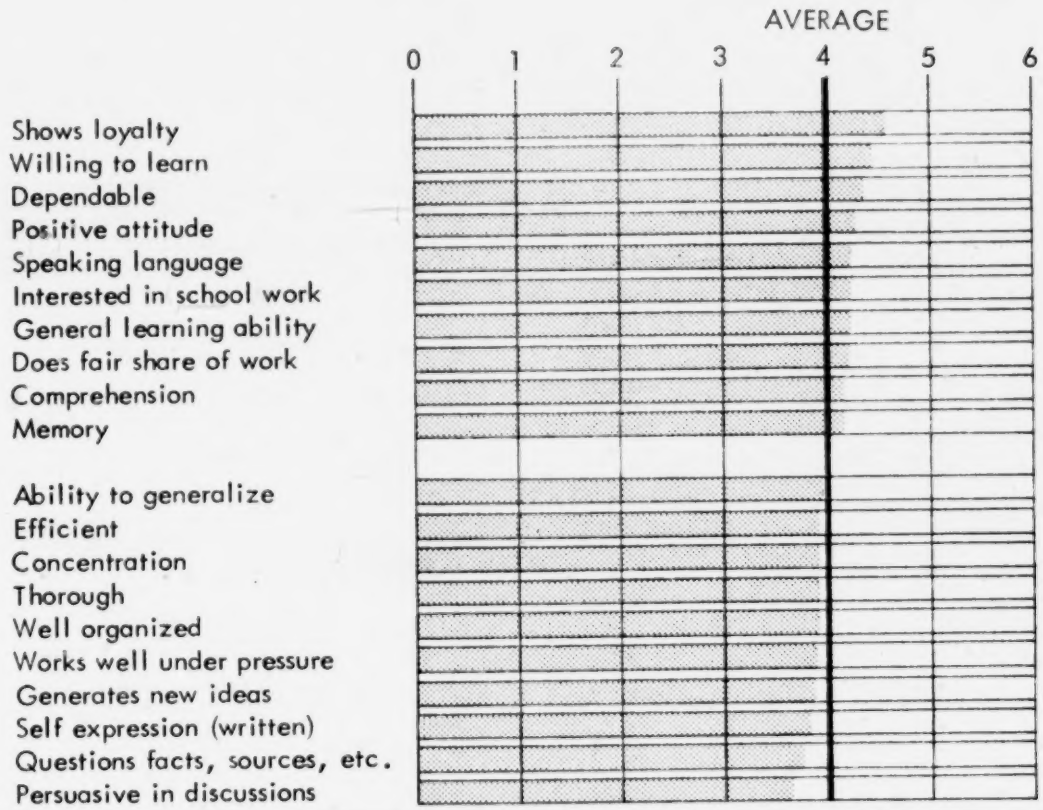


This chart shows on the whole how much better or worse than "Average" secondary students rated themselves. Elementary and secondary students had generally the same relative ranking of comparable items.*

*Rank-order correlation of 12 comparable items for elementary and secondary students produced a correlation coefficient of .92.

TABLE 5

Achievement scores for elementary and secondary students (teacher-rated).

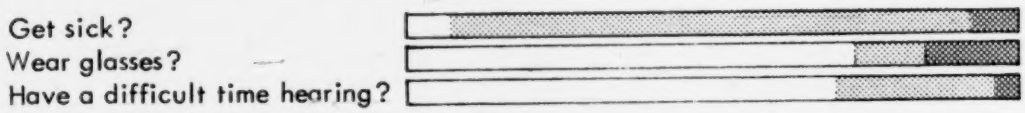


This table shows teacher ratings of students in all the even grades from two through ten. Teachers rated students on a seven point scale for each of three general areas: achievement, problems, and behavior. This table illustrates the results of ratings in the general areasof achievement, and contains the top and bottom one-fourth of the items listed. The bar shows how much higher or lower than "average" teachers rated the students.

TABLE 6

Physical problems of Elementary students (self-rated).

HOW OFTEN DO YOU...



KEY = NEVER = SOMETIMES = OFTEN =

This chart illustrates the percentage of elementary students who self-rated three physical problems they might have. It should be remembered that these are self-ratings, not professional diagnoses or evaluation.

TABLE 7

Physical problems of secondary students (self-rated).

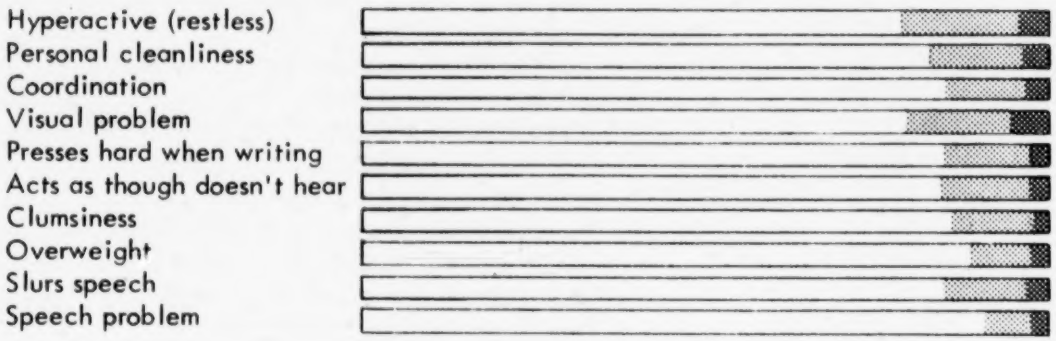
DO YOU HAVE ANY OF THE FOLLOWING PROBLEMS?

KEY = NO = ; YES, SERIOUS = ; YES, BUT NOT SERIOUS = ; YES, VERY SERIOUS =

This chart illustrates the percentage of secondary students who rated various physical problems they might have according to severity, from "No (problem)" to "Very Serious". The items are ranked from most frequent to least frequent. The lists given to the students were not intended to be all inclusive. These are just a few of the problems a student might have. Also, it should be remembered that these are self-ratings, not professional diagnoses or evaluation.

TABLE 8

Problems of Elementary and Secondary students (teacher-rated).



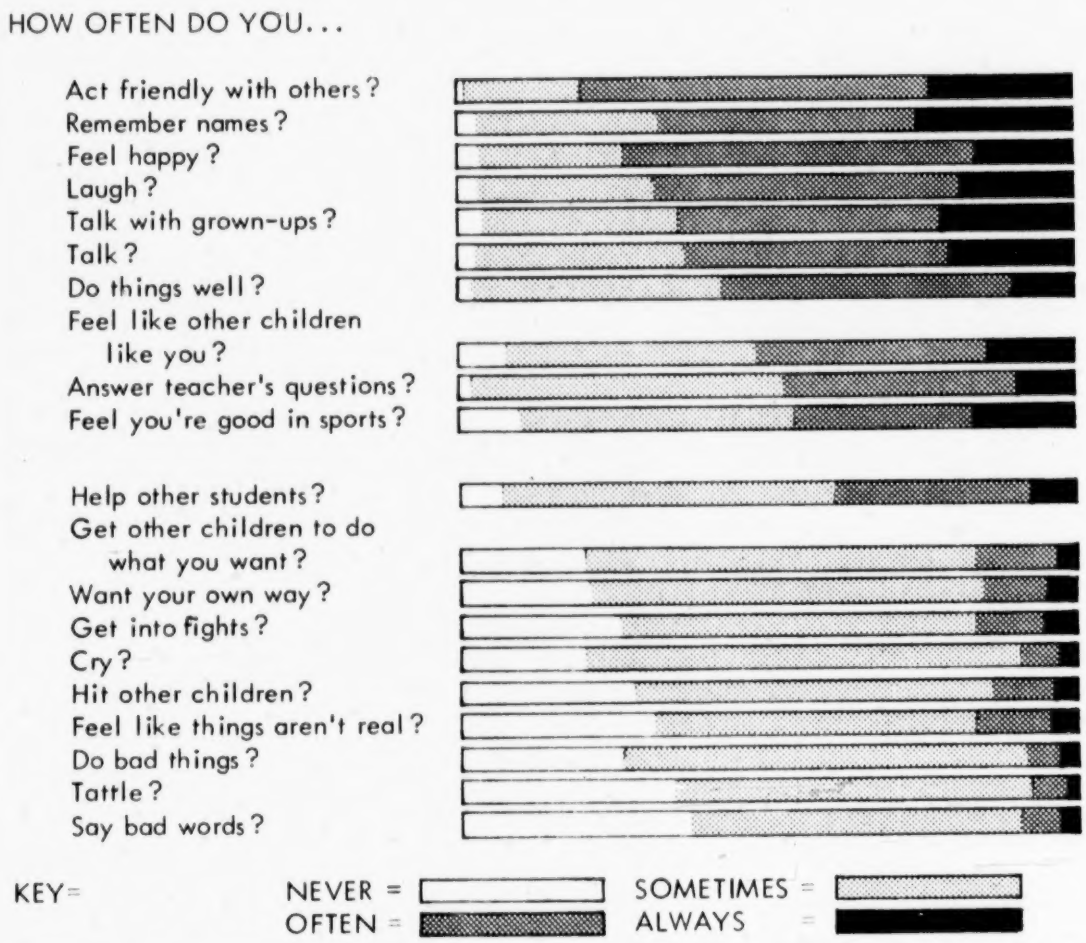
NO PROBLEM = PROBLEM, BUT NOT VERY SERIOUS =

PROBLEM, AND QUITE SERIOUS =

A list of 40 typical problems of school children was given to teachers of the even grades from two through ten. These teachers rated a sample of their students on a seven point scale according to whether they had no problem, a mild problem or a serious problem. This table shows the percentage of students in each category for the most frequently occurring 1/4 of the items.

TABLE 9

Selected behaviors of elementary students (self-rated).

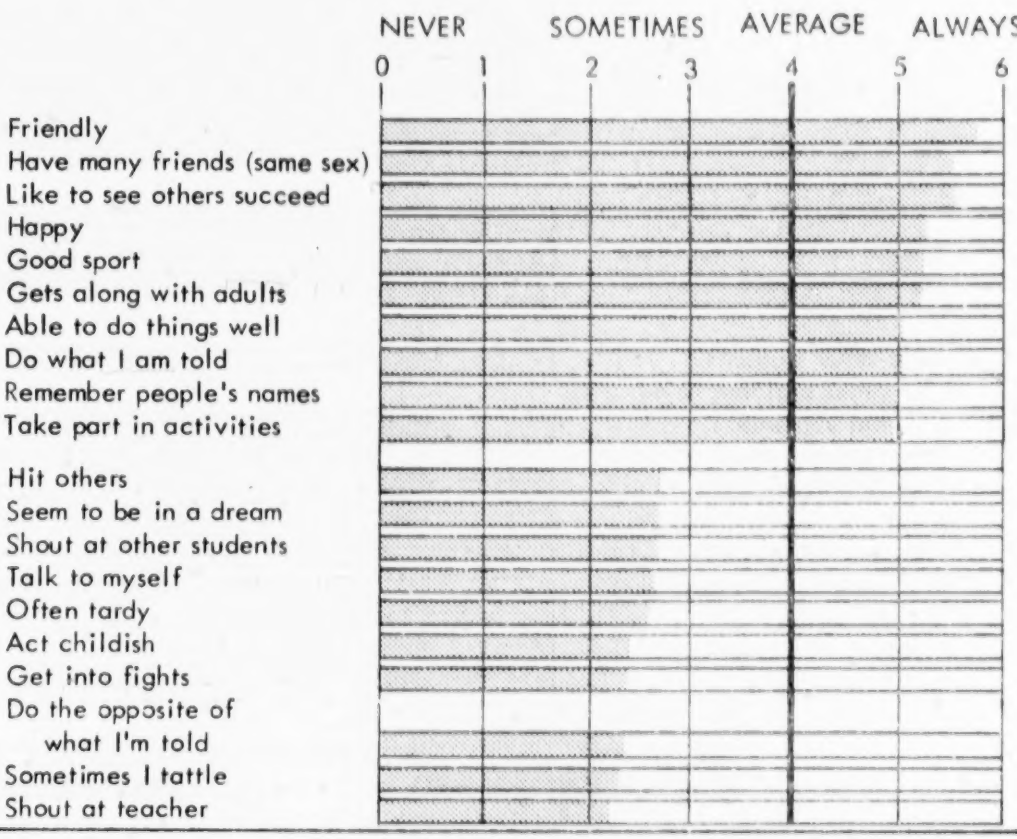


This chart shows self-ratings of how often elementary students exhibit various behaviors. A total of thirty items were given to the elementary students for self-rating, of which the most frequent 1/3 and the least frequent 1/3 are shown. They are ranked from most frequent to least frequent, and the percentage of students who answered "never", "sometimes", "often", and "always" are shown in each bar.

TABLE 10

Selected behaviors of secondary students (self-rated).

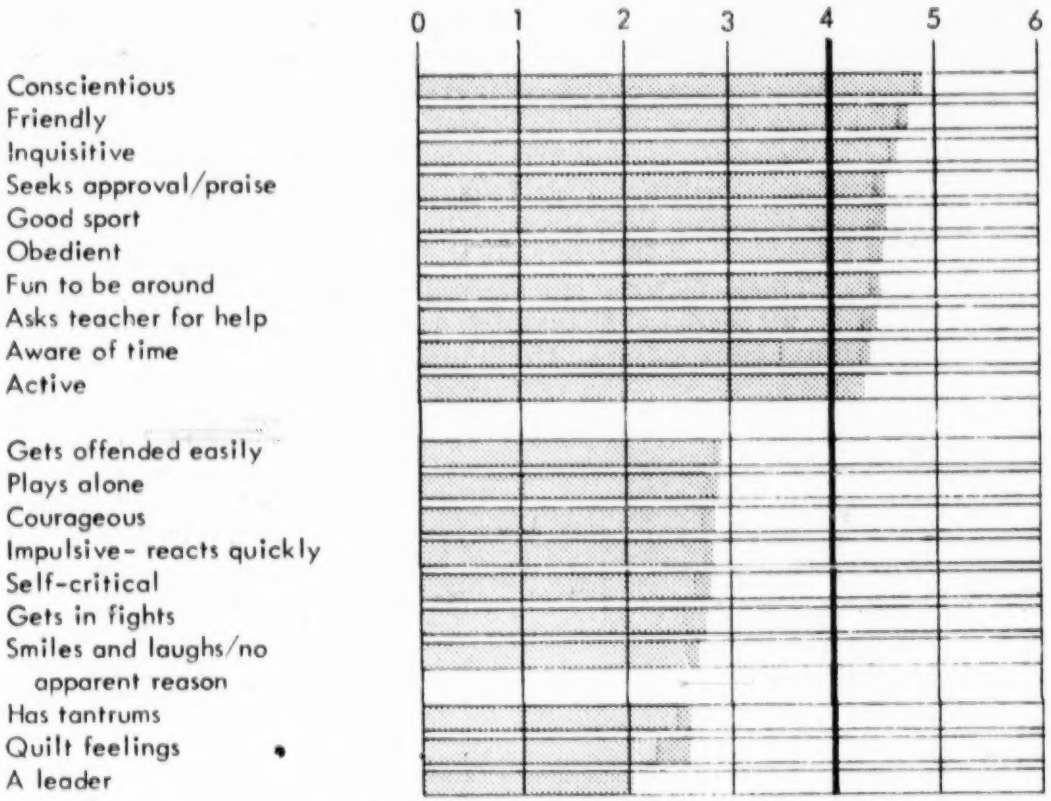
RATE YOURSELF AS TO HOW MUCH THE FOLLOWING ITEMS ARE LIKE YOU.



This chart for secondary students is much the same as the one for elementary students except that it shows on the whole how much above or below "average" students rated themselves on various items. Only the top and bottom ten items are reported in the chart, which represents about the top and bottom 1/6 of the total list of items. It should be kept in mind that these are subjective self-ratings.

TABLE 11

Behavior characteristics of elementary and secondary students (teacher-rated).



Teachers were involved in rating the degree to which various behaviors are exhibited by school children. The list contained 90 items, of which the top and bottom 1/9 are shown in the table.

TABLE 12

Analysis of Achievement Test Data:

Utah does not have a mandated testing program. The selection of tests and testing programs is left to the discretion of the individual district. These programs vary from relatively no tests to some districts testing each student every year. Also, various types of tests are used. The Office of the State Superintendent of Public Instruction provides a list of tests which are partially subsidized by federal funds. However, the districts are not required to use any of these tests. The list includes a large number of tests so that even those districts following a State approved test could use a wide variety of aptitude and achievement tests. There are many hazards in having a mandatory State testing program, not the least of which is the questionable validity of test results, since students, teachers and administrators throughout the State realize they are being measured by a specific instrument. There has been some statewide achievement testing in Utah using single instruments such as the statewide reading survey conducted during the school year 1969. A summary of this study is included in the special studies section of this report.

One alternative to a statewide testing program would be to convert each of the test scores into a standard score. This would mean that an aptitude score or IQ would be converted to the standard T score which, in each case, has a mean or average of 50 with a standard deviation of 10. Also, an achievement test, regardless of whether it is recorded as grade equivalent, percentile, etc. would be reported with a mean of 50 and a standard deviation of 10. In each case then, a score of 50 would suggest that a student scored on that particular test at the same level as the average student across the United States.

Certain misconceptions may result from this approach. One misconception arises from the nature of standardized tests. Although two different tests might purport to measure the same achievement in the same area (such as math or some other area) they might differ greatly in theory and content. The greater the difference is, the less equivalent the two tests are and the more likely it is that they are really measuring two different things.

Another problems comes in scaling the tests. Since every standardized test has a different standard deviation, some distortion may occur when different test scores are converted to T scores.

The Student Information System has developed a capacity to convert all test scores whether academic or achievement, to a standard T score. This is done automatically by a computer program. The resulting data shows how the students are scoring in terms of the standard T score.

Comparison of achievement scores for Utah students with National averages.

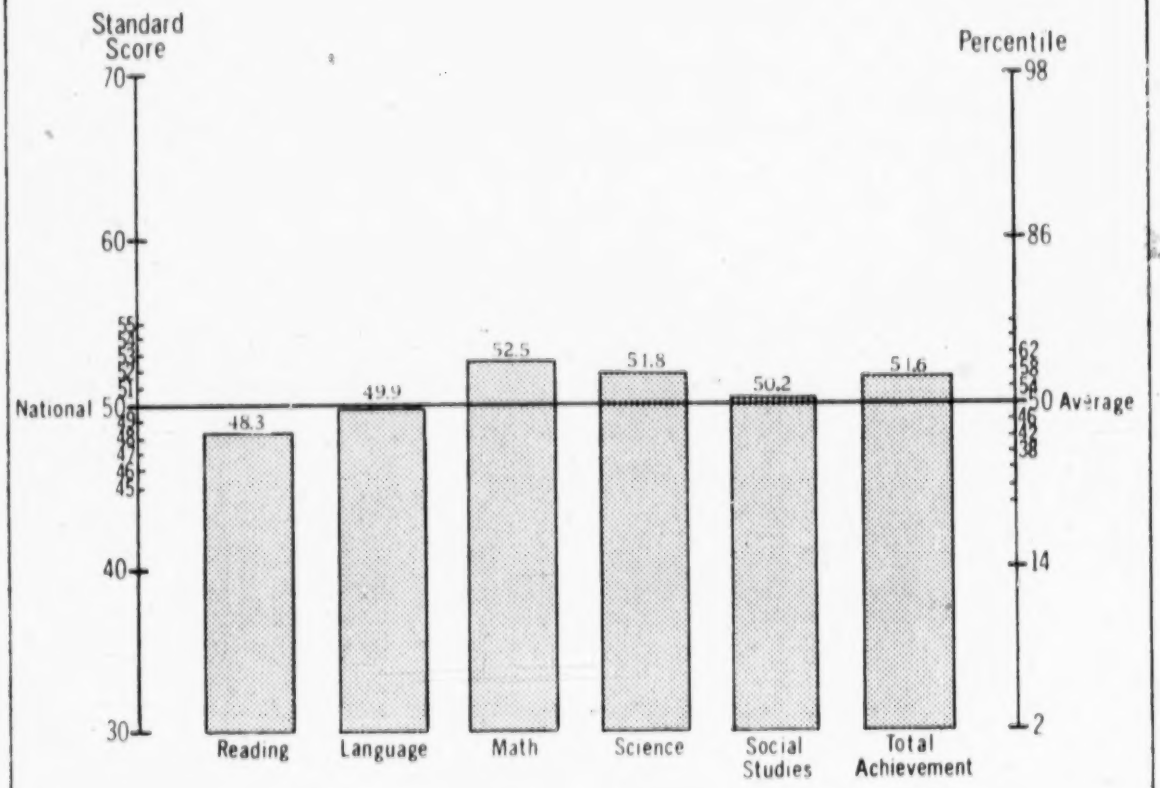


TABLE 13

Average yearly change in achievement scores.

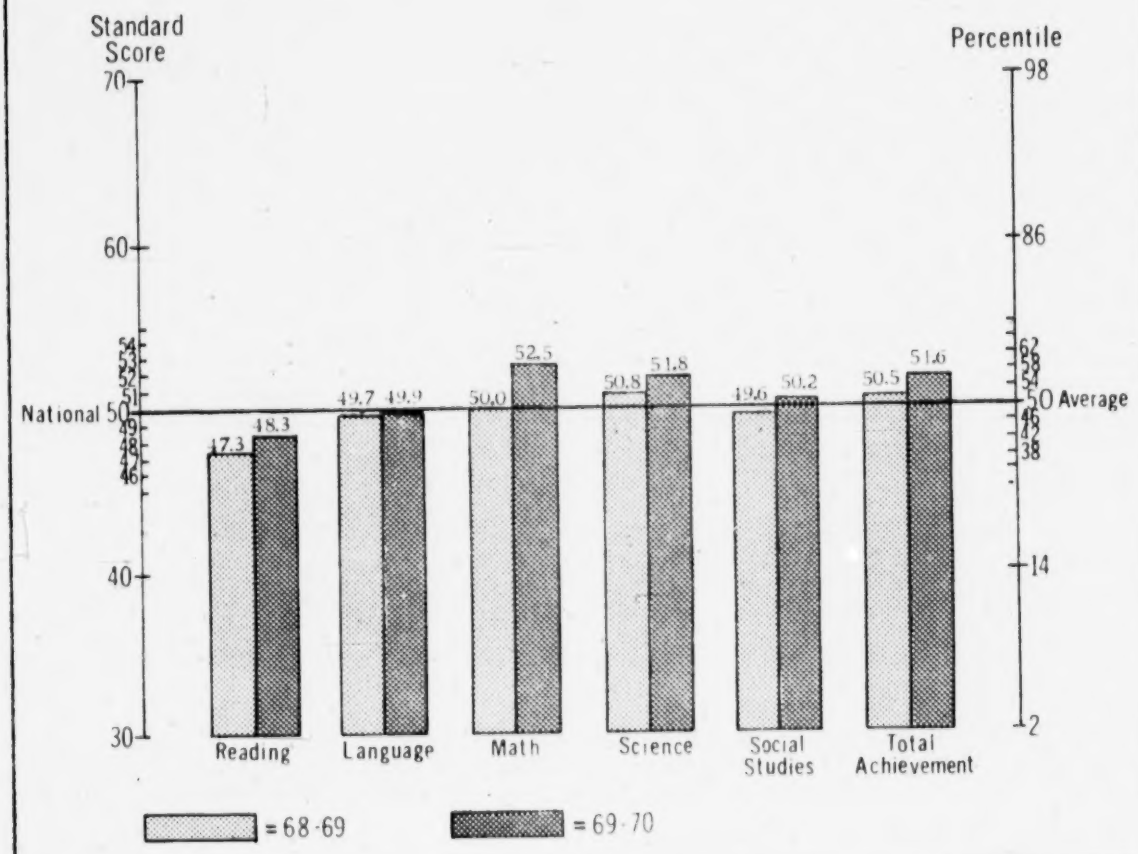


TABLE 14

The level of achievement of students in Utah was determined through this T score conversion method. The average mean was derived for each subject area. The means for Utah students are given in Table 13.

The findings on Table 13 reveal that generally Utah students score slightly above national norms in each subject area. The highest area for Utah students is mathematics and the lowest area is reading.

Another advantage of SIS is that the system retrieves data on the two most recent achievement tests taken by any student. Since the time between the two testings is recorded in the system, a computer program can calculate measured change in achievement for a given student over a one year period thereby showing the growth of students for a given year. The results of this analysis are reported in Table 14 which shows the change of achievement for Utah students compared to national norms from 1969 to 1970. On the basis of the data in Table 14, it would seem that Utah students are increasing their achievement level each year. The greatest recent increase in achievement has been in mathematics and the lowest increase in achievement has been in the language area. Achievement increased approximately three to four percentile (one T score unit) between the school years 1968-69 and 1969-70.

The State report "How Good Are Utah Public Schools", published in 1967 also reported mean scores of achievement tests. The ranking from high to low of achievement areas in the 1967 report was reading, mathematics, science and social studies, in that order. The only major change in this ranking is the area of reading which is lower. However, the methodology of the two studies was different and that may account for the change. The achievement test data for the 1967 report were reported by grade level, but only State totals are used in this report. This year's study launches an evaluation system which permits continued access to the data for additional analyses. Upon request, the test data (and all data in this study) can be analyzed by grade level, sex, school size, etc.

One question that was unanswered during previous studies was whether or not the educational system is helping students of high ability attain commensurately high levels of achievement. By converting both aptitude and achievement measures to a standard T score, this kind of analysis can be conducted. In this publication, students with different IQ levels were analyzed in terms of their achievement scores. Students' average achievement test scores were computed for five groups determined by IQ, or level of ability. The results are provided below:

PERCENTILE OF ACHIEVEMENT FOR DIFFERENT LEVELS OF ABILITY

ABILITY	ACHIEVEMENT					
Average IQ	Total (Composite)	Mathematics	Language	Science	Reading	Social Studies
98	92	93	86	84	93	79
84	79	82	73	73	76	66
50	50	54	42	50	42	46
16	24	34	21	31	16	27
2	8	8	10	NA	10	NA

It is apparent from the above data that Utah schools are not meeting the needs of the high ability groups as well as the needs of the average and low ability students. There is,though, a phenomenon called "regression to the mean" which may affect this data. The phenomenon is that extreme scores have a tendency to be less extreme when retested. Hence, the findings should be interpreted cautiously, especially where different types of tests (IQ and Achievement) are used.

Armed Forces Qualifying Test (AFQT):

All draftees and enlistees are required to take the Armed Forces Qualifying Test before entering any branch of the military service. It is a standardized examination which is administered on a uniform basis throughout the United States.

The current version covers four subject areas: vocabulary, mathematics, spatial relationships, and mechanical ability. There are twenty-five questions in each category. Questions are arranged in cycles of increasing difficulty in each of the four test areas. The AFQT is a "spiral omnibus" test emphasizing power rather than speed. Fifty minutes are allowed for the test.

All examinees from Utah and portions of Nevada, Idaho and Wyoming are examined at the Armed Forces Examining and Entrance Station located in Salt Lake City, Utah. In addition to the mental examination, the physical and moral qualifications of the candidates are considered as part of the pre-induction examination. The AFQT, which is being used at the present time, is the same as the test which was used at the time of the 1964-65 report entitled "How Good Are Utah Public Schools". Utah candidates have consistently had a low disqualification rate on the test. In order not to qualify, an individual must obtain a score below the 10th percentile. Exceptions to this criterion are individuals who have graduated from high school and scored between 0 - 9 on the AFQT. They are given an additional psychological examination to ascertain whether or not they are malingering.

Unfortunately the testing criteria for the 1958-65 period and for the calendar year 1968 were not the same; therefore, the data reported in Table 15 are not truly comparable.

From 1950 to August, 1958, the AFQT was the only mental test used to determine the examinees' mental qualification for military service, except a Spanish version of the test which was used in Puerto Rico.

In August, 1958, examinees in mental group IV, (those scoring within the 10 - 30 percentile on the AFQT) were required to take the Army Qualification Battery (AQB) and obtain a standard score of 90 in at least two of the seven aptitude areas in order to qualify mentally for military service.

In May, 1963, mental testing standards were further increased requiring a standard score of 80 in the General Technical aptitude area of the AQB in addition to standard scores of 90 in two other aptitude areas.

Due to the intensification of the Viet Nam conflict, testing standards affecting mental qualification were lowered four times in 1965 and 1966.

The change in December, 1966 was effective through calendar year 1968. For example, during 1968, all high school graduates within mental group IV (10 - 30 percentile) were considered mentally qualified without taking the AQB. Non-high school graduates scoring within the 16 - 30 percentile on the AFQT who obtained a standard score of 90 on one AQB aptitude test area were considered mentally qualified.

Based on Table 15 which analyzes AFQT data, the following interpretations are suggested:

1. The most noticable national change is the increased percent of examinees who passed the mental examination (AFQT). Every state in the union showed an increase since the 1958-65 period. However, because of the changes in test standards from 1958 through 1968, it is not possible to determine whether the increases reported in 1968 resulted from lowered test standards, or from better educational programs that indirectly affected examinees' test performance.

2. The percent of Utah examinees who passed the AFQT was 97.5% for calendar year 1968. This was a 4.0% increase over the 1958 through 1965 period. With a disqualification rate of only 2.5%, mental qualification for Utah inductees is approaching the optimum level.

3. Mental qualification rates for six states (Rhode Island, Minnesota, North Dakota, Nebraska, Wisconsin and Idaho) have surpassed Utah since the 1958-65 period. However, Utah is still ranked ninth in the nation. Rhode Island, which formerly ranked sixteenth, is now first in the nation.

4. Men from the western and midwestern states have the lowest failure rate on the mental test.

When all qualifying factors are considered, (mental, medical, moral, and administrative reasons) Utah ranks third in the nation in the percent of men found acceptable for military service. North Dakota, first in the nation, has 75.2% found acceptable, followed by Wisconsin with 62.8% and Utah with 61.8%.

The Advanced Placement Program:

The Advanced Placement Program was designed to help meet the needs of academically superior and gifted high school pupils by making it possible for them to begin their college work while still enrolled in high school. The program does three things: (1) It helps high schools to plan and develop college-level courses for their more capable pupils and provides course descriptions and professional consultation. (2) It schedules, administers,

TABLE 15

AFQT DATA

A COMPARISON OF THE MENTAL QUALIFICATION RESULTS OF PRE-INDUCTION EXAMINATION OF DRAFTEES AT ARMED FORCES EXAMINING AND ENTRANCE STATIONS BY STATE FOR CALENDAR YEARS 1958-65 AND FOR 1968.

State	1958-65 % Qual.	Nat'l. Rank	1968* % Qual.	Nat'l. Rank	Increase 1958-65 to 1968
Washington	93.7	1	98.1	6	4.4
Iowa	93.6	2	98.4	3	4.8
Utah	93.5	3	97.5	9	4.0
Montana	93.5	4	96.9	14	3.4
Minnesota	93.0	5	98.7	2	5.7
Oregon	92.9	6	97.0	13	4.1
Wyoming	91.4	7	96.7	16	5.3
Idaho	91.2	8	97.8	7	6.6
Nebraska	90.9	9	98.2	5	7.3
Kansas	90.6	10	97.3	10	6.7
North Dakota	90.3	11	98.4	4	8.1
South Dakota	89.4	12	97.3	11	7.9
Wisconsin	89.4	13	97.8	8	8.4
Colorado	87.8	14	96.0	18	8.2
Alaska	87.1	15	96.6	17	9.5
Rhode Island	86.9	16	99.1	1	12.2
New Hampshire	86.6	17	96.9	15	10.3
Indiana	86.2	18	95.2	21	9.0
Massachusetts	85.9	19	95.3	19	9.4
Vermont	85.6	20	97.2	12	11.6
Ohio	85.3	21	94.9	23	9.6
Michigan	84.7	22	93.3	29	8.6
Oklahoma	84.7	23	95.0	22	10.3
Pennsylvania	84.5	24	95.3	20	10.8
California	83.7	25	94.1	26	10.4
Nevada	82.5	26	93.9	27	11.4
Missouri	82.3	27	94.4	24	12.1
Connecticut	81.6	28	91.6	33	10.0
Illinois	80.9	29	91.3	36	10.4
Arizona	80.3	30	93.6	28	13.3
Maine	79.3	31	94.4	25	15.1
New Jersey	77.2	32	88.0	40	10.8
Hawaii	76.9	33	91.4	34	14.5
U. S. Average	76.6	-	90.3	-	13.9
New Mexico	76.0	34	89.2	37	13.2
New York	75.6	35	92.1	31	16.5
Delaware	74.6	36	92.3	30	17.7
Texas	74.3	37	91.8	32	17.5
Maryland	72.9	38	91.4	35	18.5
Florida	68.9	39	86.0	43	17.1
West Virginia	68.7	40	88.9	38	20.2
Kentucky	66.5	41	88.2	39	21.7
Virginia	66.2	42	86.8	42	20.4
District of Columbia	64.4	-	83.6	-	19.2
Tennessee	63.7	43	85.0	44	21.3
Arkansas	61.6	44	86.7	41	25.1
Georgia	58.7	45	79.1	48	20.4
Alabama	57.7	46	82.6	46	24.9
North Carolina	57.5	47	82.0	47	24.2
Louisiana	54.8	48	84.7	45	29.9
South Carolina	46.8	49	76.0	49	29.2
Mississippi	42.7	50	70.5	50	27.8

*Source: Supplement to Health of the Army. Results of the Examination of Youths for Military Service, 1968. Medical Statistics Agency, Office of the Surgeon General, Department of the Army, Table 16, pages 44-45, June 1969.

and grades examination papers based upon these courses. (3) It transmits the examination grades, together with supporting materials, to the college(s) of the pupils' choice, thus enabling colleges to grant credit and make appropriate pupil placement.

Examination papers are graded on a five-point scale with reference to the examiner's requirements: 5 - extremely well qualified; 4 - well qualified; 3 - qualified; 2 - possibly qualified; 1 - no recommendation. Candidates achieving examination grades of 5, 4, or 3 are assured of eight semester hours or twelve quarter hours of credit by any of the degree-granting institutions in Utah. Those receiving a grade of 2 may receive some or even an equal amount of credit, depending upon the reactions of the particular institution to the examination paper.

The Advanced Placement Program is in its sixteenth year of operation at the national level. Utah has participated since 1961-62, and in that interval the program has expanded rapidly in Utah high schools. During 1965-1966, 731 Utah pupils took 821 examinations. The program involved 34 high schools in 15 Utah districts. In the 1969-70 school year 921 students took 1,048 examinations. This represented 38 high schools in 16 districts. Two private schools also participated in the 1969-70 Advanced Placement Program.

Other pertinent factors relating to Utah's Advanced Placement Program are as follows:

Exciting and challenging opportunities are being provided for academically superior high school seniors.

The number of pupils involved in Advanced Placement is increasing rapidly.

Approximately one-third of the pupils enrolled in Advanced Placement classes take the examinations.

Many gifted pupils take and pass the examinations without enrolling in Advanced Placement courses.

The Advanced Placement Program has stimulated the development of other advanced courses as preparatory avenues to post high school objectives.

The data on Advanced Placement in this report are presented in exactly the same form as in the 1967 study "How Good Are Utah Public Schools". Only the results on the five subject matter areas with the greatest number of participants--English, Biology, Chemistry, American History, and Mathematics AB are reported here. Examinations were also

passed in European History, Physics B, Physics C, Mathematics BC, French, German, Latin (Virgil) and Spanish. To assist in tying the 1967 report to this current effort, the 1966 data, (the final year in the earlier study) are also included in this new report.

Advanced Placement - English:

Highlights of Table 16:

There is a considerably greater number of candidates working in the field of English than in any other subject matter area, both in Utah and in the nation.

Utah students continue to fall below the national norm in terms of the mean grade achieveved in English. The growth that is taking place, however, is most encouraging. This growth is reflected in the following:

1. The actual gap between the mean grade for the State and for the national candidate group has decreased from .6 of a point to less than .4.

2. The percent of Utah students receiving grades of 5, 4, or 3 has increased from 37% in 1966 to 62% in 1970. In the same period the percentage for the nation increased from 63% to 74%.

3. The percent of Utah candidates receiving a grade of 1 - No Recommendation - decreased from 18% in 1966 to 6% in 1970. The decrease in this same category for the national group was from 7% in 1966 to 4% in 1970.

4. The number of Utah students in the Advanced Placement Program in English increased from 446 in 1966 to 924 in 1970. This is a growth of 107%. Growth in the national group over the same period was 55%.

Advanced Placement - American History:

Highlights of Table 17:

The Advanced Placement Program in American history ranks second in popularity among Utah students although their performance in this field is probably not quite as good as in chemistry and English. This same observation holds true even back through 1962-65 as reported in the 1967 study. It would be difficult to identify reasons for this.

There was significant improvement in the mean grade for Utahns in 1966 as compared with 1967. Since 1967, Utah candidates have remained at about the same point while the national norm has increased by a .2 of a grade.

The number of Utah students participating has increased from 158 in 1966 to 342 in 1970, a growth of 116%. Growth in national participation over the same period was 36%.

Advanced Placement - Mathematics (Calculus AB):

Highlights of Table 18:

Although the number of students taking examinations in mathematics (calculus AB) is small and probably highly selective both at the state and national levels, the Utah participants perform relatively well.

1. The gap between the state and national mean grades decreased from .6 of a grade point in 1966 to .17 in 1969 and .22 in 1970.

2. The percent of Utah students receiving grades of 5, 4, or 3 increased from 24 in 1966 to 48 in 1969 and 44 in 1970.

3. There is a consistent rate of growth in participants in Utah at approximately 55% over the five years. The national growth rate for the national group is 7%.

Advanced Placement - Biology:

Highlights of Table 19:

The number of Utah students participating in Advanced Placement in biology, as well as their performance in this field, is more erratic than in any field reported in the current study. This is somewhat inconsistent with the traditionally high performance of Utah students in the field of natural sciences. The first and most logical explanation probably lies within the very small number of candidates participating in Utah. Greater variations from the national norm can be expected with the smaller numbers.

Contrary to the pattern evident in the other subject matter areas, the following are observed about the Utah results in biology:

1. The percent of Utah students passing with grades of 5, 4, or 3 has not improved in the five-year period.

2. The gap between the Utah mean grade and the national mean grade has remained at about .5 of a grade for the period covered.

3. Growth in the program in Utah has been at an average rate of only 35 percent compared with 48 percent at the national level.

Advanced Placement - Chemistry:

Highlights of Table 20:

Both at the state and national levels the number of candidates in the field of chemistry is smaller than in the other four fields reported. The ratio of Utah candidates to the national group remains about the same as for the other fields, however,

Both in mean score and in the number of candidates receiving grades of 5, 4, or 3, the Utah students demonstrate their best and their most consistent performance in the field of chemistry.

Although the mean score of the Utah students is slightly lower than the national norm, the percent receiving grades of 5, 4, or 3 is equal to the national norms.

The rate of increase in participation in the chemistry program is significantly higher than the rate of increase for the national group.

TABLE 16
DISTRIBUTION OF CANDIDATES' GRADES
ON THE
ADVANCED PLACEMENT EXAMINATION IN ENGLISH
1966-1970

Examination Grade	1966 Utah Number	1966 Utah Percent	1966 National Number	1966 National Percent	1967 Utah Number	1967 Utah Percent	1967 National Number	1967 National Percent	1968 Utah Number	1968 Utah Percent	1968 National Number	1968 National Percent
5	12	4	1,491	9	20	4	1,644	9	31	5	2,502	12
4	32	7	2,598	16	67	13	2,947	16	87	15	3,692	18
3	115	26	6,172	38	184	35	6,656	36	244	42	8,442	41
2	207	46	4,945	30	204	39	5,763	32	183	31	4,817	24
1	79	18	1,060	7	47	9	1,373	7	40	7	1,078	5
Number of Candidates	446		16,266		522		18,383		585		20,531	
Mean Grade	2.3		2.9		2.63		2.9		2.81		3.1	

Examination Grade	1969 Utah Number	1969 Utah Percent	1969 National Number	1969 National Percent	1970 Utah Number	1970 Utah Percent	1970 National Number	1970 National Percent
5	36	5	2,954	12	26	3	2,286	9
4	62	8	3,730	16	102	11	4,750	19
3	378	47	10,870	46	439	48	11,528	46
2	241	30	4,703	20	298	32	5,491	22
1	79	10	1,434	6	59	6	1,165	4
Number of Candidates	796		23,691		924		25,220	
Mean Grade	2.67		3.1		2.72		3.1	

KEY: (Examination Grades)

5 - Extremely Well Qualified
4 - Well Qualified
3 - Qualified
2 - Possibly Qualified
1 - No Recommendation

TABLE 17
DISTRIBUTION OF CANDIDATES' GRADES
ON THE
ADVANCED PLACEMENT EXAMINATION IN AMERICAN HISTORY
1966-1970

Examination Grade	1966 Utah Number	1966 Utah Percent	1966 National Number	1966 National Percent	1967 Utah Number	1967 Utah Percent	1967 National Number	1967 National Percent	1968 Utah Number	1968 Utah Percent	1968 National Number	1968 National Percent
5	2	1	397	4	1	1	568	6	4	2	720	7
4	16	10	1,441	17	16	12	1,844	21	21	11	2,243	21
3	58	37	3,801	43	41	31	3,376	38	70	37	4,325	41
2	66	42	2,725	30	62	47	2,614	29	78	41	2,859	27
1	16	10	509	6	12	9	533	6	16	8	461	4
Number of Candidates	158		8,873		132		8,935		189		10,608	
Mean Grade	2.1		2.8		2.48		2.9		2.57		3.0	

Examination Grade	1969 Utah Number	1969 Utah Percent	1969 National Number	1969 National Percent	1970 Utah Number	1970 Utah Percent	1970 National Number	1970 National Percent
5	3	1	630	5	9	3	785	7
4	22	8	2,964	25	45	13	3,189	26
3	93	33	4,570	39	85	25	3,895	32
2	145	51	3,198	27	174	51	3,794	32
1	21	7	475	4	29	8	393	3
Number of Candidates	284		11,837		342		12,056	
Mean Grade	2.44		3.0		2.51		3.0	

KEY: (Examination Grades)

5 - Extremely Well Qualified
4 - Well Qualified
3 - Qualified
2 - Possibly Qualified
1 - No Recommendation

TABLE 18
DISTRIBUTION OF CANDIDATES' GRADES
ON THE
ADVANCED PLACEMENT EXAMINATION IN MATHEMATICS (CALCULUS AB)
1966-1970

Examination Grade	1966 Utah Number	1966 Utah Percent	1966 National Number	1966 National Percent	1967 Utah Number	1967 Utah Percent	1967 National Number	1967 National Percent	1968 Utah Number	1968 Utah Percent	1968 National Number	1968 National Percent
5	1	1	763	8	4	4	660	6	4	3	965	8
4	4	4	1,148	12	14	14	1,595	15	14	9	1,667	15
3	18	19	2,828	29	21	21	2,680	25	38	25	3,239	28
2	34	37	2,848	30	38	38	3,241	31	44	29	2,894	25
1	35	39	2,043	21	24	24	2,499	23	50	33	2,838	24
Number of Candidates	92		9,630		101		10,675		150		11,623	
Mean Grade	1.9		2.6		2.37		2.5		2.19		2.6	

Examination Grade	1969 Utah Number	1969 Utah Percent	1969 National Number	1969 National Percent	1970 Utah Number	1970 Utah Percent	1970 National Number	1970 National Percent
5	9	6	931	9	7	5	935	9
4	17	12	1,738	17	24	17	1,848	18
3	44	32	2,726	27	32	22	2,565	25
2	38	27	2,974	29	47	33	2,924	28
1	31	22	1,911	19	33	23	2,001	20
Number of Candidates	139		10,280		143		10,273	
Mean Grade	2.53		2.7		2.48		2.7	

KEY: (Examination Grades)

5 - Extremely Well Qualified
4 - Well Qualified
3 - Qualified
2 - Possibly Qualified
1 - No Recommendation

TABLE 19
DISTRIBUTION OF CANDIDATES' GRADES
ON THE
ADVANCED PLACEMENT EXAMINATION IN BIOLOGY
1966-1970

Examination Grade	1966 Utah Number	1966 Utah Percent	1966 National Number	1966 National Percent	1967 Utah Number	1967 Utah Percent	1967 National Number	1967 National Percent	1968 Utah Number	1968 Utah Percent	1968 National Number	1968 National Percent
5	3	5	278	9	2	3	280	8	1	2	414	11
4	5	8	363	12	3	4	414	13	2	4	447	11
3	15	24	969	32	19	28	1,017	30	12	26	1,341	35
2	20	32	969	32	30	45	1,068	33	18	39	1,064	27
1	19	31	452	15	13	19	545	16	13	28	623	16
Number of Candidates	62		3,031		67		3,324		46		3,891	
Mean Grade	2.2		2.7		2.34		2.6		2.13		2.7	

Examination Grade	1969 Utah Number	1969 Utah Percent	1969 National Number	1969 National Percent	1970 Utah Number	1970 Utah Percent	1970 National Number	1970 National Percent
5	1	1	434	10	3	4	491	11
4	11	11	939	21	4	5	832	18
3	20	21	1,279	29	28	33	1,693	38
2	39	40	1,086	24	35	42	902	20
1	26	27	711	16	14	17	570	13
Number of Candidates	97		4,449		84		4,490	
Mean Grade	2.2		2.8		2.37		2.9	

KEY: (Examination Grades)

5 - Extremely Well Qualified
4 - Well Qualified
3 - Qualified
2 - Possibly Qualified
1 - No Recommendation

TABLE 20
DISTRIBUTION OF CANDIDATES' GRADES
ON THE
ADVANCED PLACEMENT EXAMINATION IN CHEMISTRY
1966-1970

Examination Grade	1966 Utah Number	1966 Utah Percent	1966 National Number	1966 National Percent	1967 Utah Number	1967 Utah Percent	1967 National Number	1967 National Percent	1968 Utah Number	1968 Utah Percent	1968 National Number	1968 National Percent
5	1	2	314	9	2	4	313	8	2	3	246	6
4	5	10	865	25	12	21	731	19	10	16	618	16
3	33	66	1,547	44	22	39	1,505	40	31	51	2,081	54
2	9	18	587	16	13	23	958	25	11	18	538	14
1	2	4	203	6	7	13	317	8	7	11	391	10
Number of Candidates	50		3,516		56		3,824		61		3,874	
Mean Grade	2.9		3.1		2.8		2.9		2.82		2.9	

Examination Grade	1969 Utah Number	1969 Utah Percent	1969 National Number	1969 National Percent	1970 Utah Number	1970 Utah Percent	1970 National Number	1970 National Percent
5	4	5	325	8	2	2	256	6
4	10	13	579	14	11	12	629	16
3	39	51	2,013	48	49	54	1,958	49
2	15	20	667	16	18	20	657	16
1	8	11	621	15	10	11	505	13
Number of Candidates	76		4,205		90		4,005	
Mean Grade	2.83		2.8		2.74		2.9	

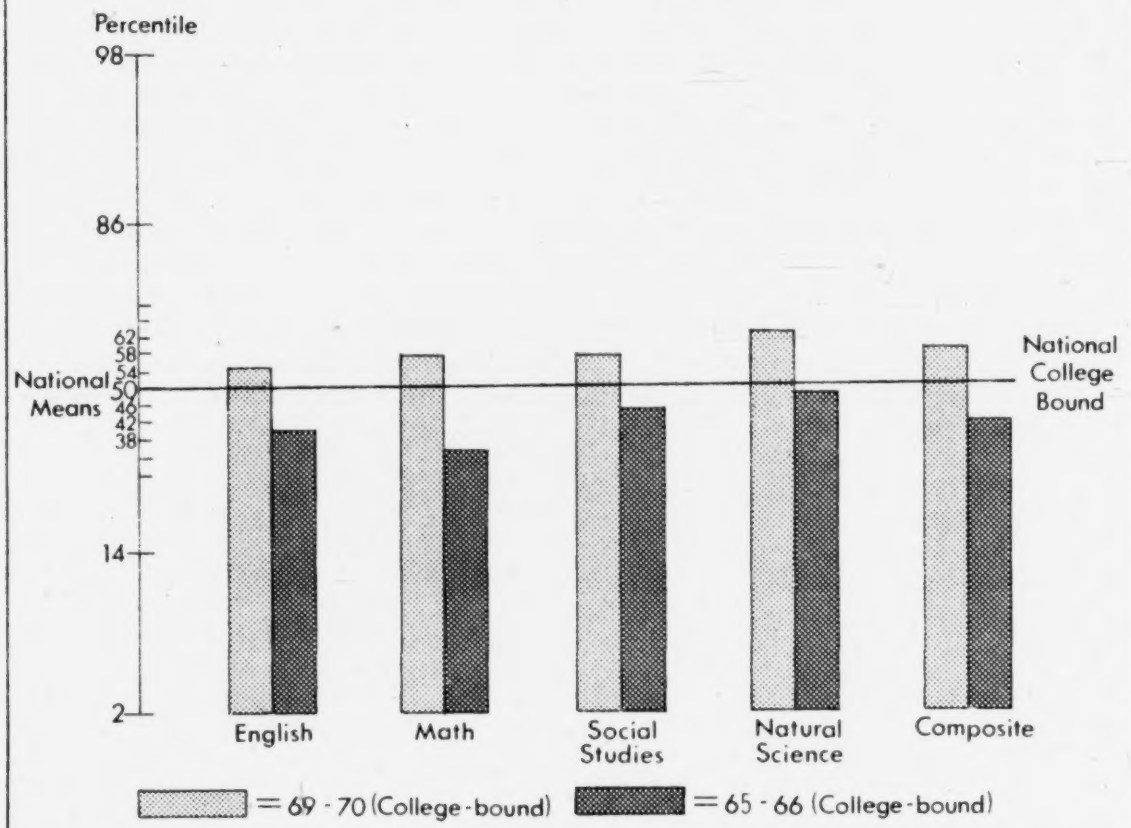
KEY: (Examination Grades)

5 - Extremely Well Qualified
4 - Well Qualified
3 - Qualified
2 - Possibly Qualified
1 - No Recommendation

ACT Results:

The American College Testing Corporation (ACT) conducts various tests during each year to determine how well prepared students are for college in terms of academic achievement. The ACT measures achievement in English, mathematics, social studies, natural sciences and a composite of measures of overall achievement. Results of these tests are required by many colleges and universities as one of the criteria for admission. These institutions use the test results to evaluate applicants for acceptance or rejection. To facilitate this evaluation, the ACT Corporation publishes national, regional, and state averages. Since these averages change somewhat from year to year and group to group, the only accurate way to compare achievement for Utah students in different years is to show how much higher or lower Utah students score compared to the national average for respective years. Table 21 shows Utah and national ACT mean scores for 1965-66 and 1969-70. Data on Table 21 shows what percentile the State average was for both years in comparison with a national average of 50 percentile. In 1965-66 the "average" Utah student was substantially below the national "average" in each subject area. However, in 1969-70 the "average" Utah student scored substantially higher than the national average in each subject area. The greatest increase was in the area of mathematics. This finding is supportive of the achievement test analysis of this report.

A C T Test score results- comparative (1969-70, and national means)



Data for 1965-66 were obtained from "How Good Are Utah Public Schools, 1967, p. 35. Averages for Utah students for 1969-70 are from ACT Class Profile Report, 1969-70. Freshmen National norms for 1969-70 are found on page 15 of Using ACT on the Campus, 1970-71.

TABLE 21

SECTION III - SPECIAL STUDIES

Study 1 - Statewide Reading Survey:

Third graders throughout Utah were sampled in 1969 by the Division of Research and Innovation of the State Agency. Five kinds of testing were used to gain information on various reading skills. Complete results of this study are available through that division.

The survey showed that in each of the tests, Utah children are slightly above average. This statistic, however, does not paint an accurate picture because of the large concentrations of students at each end of the scale.

On the vocabulary section of the Gates-MacGinitie Reading Test, 17% of the children scored one or more years below their own grade level and 32% scored one or more years above. When it came to actually understanding what they had read, 22% were one or more years below where they should have been. Yet more than one-third of them (35%) scored one or more years above. It is obvious that large numbers of students are doing either extremely poorly or very well. A much different picture usually might be expected, with most of the students at the average level and a few at either end.

A comparison of the Durrell Oral Reading Rate data also indicates that 15% of the children were reading roughly 1 $\frac{1}{2}$ years below their grade level. At the other extreme, some 8% were able to read material about three years above grade level. All told, 97% of the children could read material at their own grade level, yet 46% of them did not fully understand what they had read. The general pattern was that as difficulty increased, errors also increased and comprehension decreased. On the least difficult paragraph, 91% could describe the meaning while on the most challenging paragraph, only 4% could explain the meaning.

A realistic reading sample included the warning label from a can of turpentine, instructions for building a bird feeder (for boys) and a pancake recipe (for girls), plus instructions for playing a child's game. The average child tested made 5 errors reading the turpentine label. A large portion of his classmates (41%) made 7 errors. In fact, 62% of the children made 5 or more mistakes.

The bird feeder and pancake paragraphs were handled rather well with 27% of the children making no errors at all. However, 20% made 7 errors each. The instructions for the game gained even better results with fully 58% of the children making no errors. Even here 10% of the children made 7 errors. Again we see the same pattern emerging. Significant numbers just are not reading as they should be, even though many of the classmates are doing very, very well.

Sixteen subgroups were identified and their characteristics on all variables in the study reported. The lowest achievement scores on these instruments were found in the Indian, low socio-economic Caucasian, Black and Mexican-American subgroups. There were, however, third graders from each of these subgroups who were among the top performers. For example, 18% of the Mexican-American, 14% of the low socio-economic, 2% of the Indian and 3% of the Black sample scored in the sixth grade norm range for the word analysis lists 1 and 2 of the Durrell instrument. Some of the deficiencies evident in these groups can be traced to obvious cases such as the function word error pattern among Indians. There are few, if any, such words in the Indians' native tongue and their use in the English language is a real challenge.

Other specified facts from the study which are useful in understanding reading achievement in Utah are (1) 99.5% of the third grade children in the study demonstrated word analysis skills at or above first grade level, (2) 19% of the children were unable to comprehend material read to them at grade level (3) the mode for the distribution of these third grade children was at fourth grade fifth month in vocabulary and third grade ninth month in comprehension.

The above findings would seem to indicate that for groups whose backgrounds are complemented by present teaching techniques and materials, above grade level success is being achieved. On the other hand, groups whose backgrounds are foreign to these techniques and materials perform below their grade level.

Our problem now seems to be finding techniques and materials that could be used to upgrade the reading skills of these subgroups. We could then reasonably hope to attain a record which would have grade level reading near the low point of the scale and children with more ability would range into the higher levels.

Study 2 - Identification of Students with a Drug Proneness:

One segment of this study was to determine the unique needs or characteristics of students who had a proneness to use drugs. The first step in this particular study was to describe the characteristics of students who use drugs. This was accomplished by having 60 known drug users[5] complete the SIS Student Questionnaire II. These students were also asked to complete additional items which were developed specifically for the study. The data from these known drug users were compared with State norms. Data from each of the selected items were analyzed in terms of the power of the item to discriminate between drug users and the average student. Twelve items were selected as a drug proneness scale. Of these twelve items, ten discriminated significantly between users and non-users (at the .001 level of confidence). The ten items were:

SQII Item No.	
96	Getting along with adults. (low)
97	Do what I am told. (low)
104	Use vulgar language.
118	Take part in activities. (low)
110	Keep at things until finished.. (low)
132	Don't worry too much. (low)
92	Able to do things well. (low)
128	Make wise decisions. (low)
135	Often tardy.
93	A good leader. (low)
127	Fun to be around. (low)
139	Happy. (low)

The mean total score on this drug proneness scale is 54.31 for all students in Utah. The mean score for drug users is 44.57. The item mean for each item in the drug proneness scale is 4.53 for all students and 3.71 for the drug users. This suggests that approximately 16% of the students sampled in Utah score high on items that identified drug users. About 32% scored as high as the total sample of drug users. These students would be considered to have needs similar to those of the drug users. This does not mean that an individual student in this group would be likely to use drugs, but rather that as a group, there is a prevalence of the characteristics which are associated with drug usage.

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[5]These students were provided by the Salt Lake County Juvenile Court, and the Salt Lake City Drug Crisis Center. Both of these agencies provided assistance and direction for this study.

A second screening procedure was devised through the use of a drug attitude scale which was developed including special items devised for this study. This scale was administered in addition to the SIS instrument. The drug attitude scale consists of the following eight items:

People who use drugs are more interesting than those who don't.
Moderate use of drugs may help some people.
It is possible to use drugs and lead a useful life.
One should stay away from habit forming drugs.
A person is better off not to associate with drug users.
A person who uses drugs disgusts most people.
The increased use of drugs is understandable.
There is a difference between drug users and drug abusers.

The use of the drug attitude scale provides another dimension in addition to that of the drug proneness scale. A student may score high on the drug proneness scale and low on the drug attitude scale. This would suggest that although this student has characteristics of students who use drugs, he is not likely to use drugs unless his drug attitudes change. However, as the attitude toward drugs changes according to measurement through the drug attitude scale, this student would be a likely candidate to use drugs. All students who score high on both the drug proneness scale and the drug attitude scale would be considered high risks for drug use and should be provided a preventive program. Preventive programs would focus on the needs of these potential drug users rather than the use of drugs themselves. For instance, programs could be developed to help students improve their ability to get along with adults, recognize legal authority, participate in activities, improve their self concept, etc.

Study 3 - Vocational Preparation:

A third separate study completed with this State evaluation was to determine characteristics of students who were likely to succeed or fail on the job. To accomplish this, 30 students were identified as having most potential for success on the job based on their work attitudes and habits. Those selecting the students were asked not to consider specific work skills. The students were selected by their vocational education teacher. Also, 30 students were selected by their vocational education teacher who were rated as least likely to succeed on the job according to the same criteria. Each of the students completed the Student Questionnaire Level II and, in addition, was rated on the SIS Student Check List by his vocational education teacher. As a result of the study, occupational success scales were developed for the SACL, SBCL, and SQII. These scales are as follows:

Student Behavior Check List Scale:	Mean Difference Between Most and Least Potential Groups
Item #27 - Keeps working at things	3.416
Item #47 - Conscientious	3.010
Item #69 - Ambitious	2.919
Item #60 - Likes school	2.865
Item # 8 - Obedient	2.815
Item #64 - Frequently tardy (negative)	2.758
Item #49 - Has good judgement	2.594
Item #89 - Works well under pressure	2.579
Item # 7 - Relates well with adults	2.526
Item #75 - Has a positive attitude	2.516
Student Achievement Check List Scale:	
Item #28 - Dependable	3.750
Item #30 - Interested in school work	3.724
Item #19 - Completes assignments	3.611
Item #37 - Does fair share of work	3.601
Item #20 - Thorough	3.389
Item #35 - Works well under pressure	3.306
Item #31 - Works independently	3.222
Item #39 - Willing to learn	3.167
Item #34 - Positive attitude	3.055
Item #32 - Accurate	3.028
SIS Student Questionnaire Level II (SQII) Scale:	
Item #108 - Calm and relaxed	1.414
Item # 90 - Class participation	1.413
Item #118 - Takes part in activities	1.207

SIS Student Questionnaire Level II (SQII) (Cont.)	Mean Difference Between Most and Least Potential Groups
Item #131 - Stubborn (negative)	1.276
Item # 98 - Likes new students or strangers	1.172
Item #115 - Talks back (negative)	1.172
Item #135 - Often tardy (negative)	1.138
Item #113 - Likes to prevent arguments	1.138
Item #104 - Uses vulgar language	1.104
Item #106 - Shouts at students	1.069

Each of the SCL factors significantly discriminate between the high and low potential workers. Ranked in order of their discriminating ability, they are:

	t Value	Level of Significance
Trait 5 Social adjustment	11.65	.001
Trait 2 Learning attitudes	10.38	.001
Trait 4 Personal adjustment	10.12	.001
Trait 6 Maturity	6.95	.001
Trait 1 Cognitive skills	6.16	.001
Trait 7 Flexibility	4.96	.001
Trait 3 Psycho-motor creativity	3.89	.02

If students could increase their scores on these scales, it would increase the probability of their achievement of success on the job. The items in the three vocational scales typify the characteristics which seem to be important in terms of success on the job. Programs in this area should focus on these characteristics. These scales can be used to identify students needing help in this area (students scoring lowest on the scales), as well as to measure the success of programs in increasing their scores. Tables 22 and 23 provide some additional information in terms of the vocational education programs. Table 22 compares enrollments and completion in vocational education programs for the years 1969 and 1970. Table 23 outlines future job areas in Utah.

VOCATIONAL EDUCATION ENROLLMENTS AND COMPLETIONS 1969, 1970

Area	Secondary Enrollments		Post Secondary Enrollments		Adult Enrollments		Totals		Special Needs Enrollments		Secondary Completions Total		Post Secondary Completions Total	
	1969	1970	1969	1970	1969	1970	1969	1970	1969	1970	1969	1970	1969	1970
Agriculture	3,117	5,581	223	65	675	787	4,015	6,433	468	735	1,286	4,125	7	65
Distribution	1,453	1,533	163	251	4,284	3,687	5,900	5,471	614	323	1,064	844	7	121
Health Occupations	118	182	677	711	145	64	940	957	5	171	102	140	47	406
Home Economics Useful	10,032	20,511	13	649	7,709	7,299	17,754	28,429	1,178	3,873	4,207	14,652		
Home Economics Gainful	846	419		313	199	856	1,045	1,588	142	239	464	376		295
Office	12,912	17,610	1,003	2,091	3,416	5,243	17,331	24,974	1,083	2,109	6,964	14,695	263	252
Technology		13	970	1,868	105	341	1,075	2,222		247			122	425
Trade & Industrial	3,943	6,725	6,275	4,186	4,993	6,076	15,211	16,987	886	2,422	2,847	5,005	659	1,153
TOTAL	32,421	52,574	9,324	10,134	21,526	24,353	63,271	87,061	4,376	10,319	16,934	39,837	1,105	2,717

Percent of Secondary Students Enrolled in Vocational Education 1970 - 38.3

Table 22

WHERE WILL JOBS BE IN UTAH

	1965 Work Force	Expected Change to 1975	1975 Work Force	Increase
Agriculture	15,700	-36%	10,048	-5,652
Construction	23,100	24%	28,644	5,544
Finance and Real Estate	14,700	28%	18,816	4,116
Government	79,400	57%	124,658	45,258
Manufacturing	51,800	28%	66,304	14,504
Mining	12,500	-8%	11,300	-1,200
Service	57,500	50%	86,250	28,750
Trade	81,800	30%	106,340	24,540
Transportation & Utilities	22,800	3%	23,484	684
TOTALS	359,300		475,844	116,544

Work force, November (Empolyment Newsletter Forecast)	438,600	
Increase 1965 to November 1970 and percent of increase	79,300	68.0%
Percent of work force in production occupations		36.6%
Percent of work force in service occupations		63.4%

Nearly two-thirds of jobs in Utah 1970 to 1975 will likely be in service occupations

Data computed from Bulletin "Where Will Jobs Be in Utah", April 1970 and November 1970 Newsletter, Department of Employment Security

Table 23

Study 4 - Description of Students with Special Problems:

One aspect of this study was to analyze students with special educational problems. To accomplish this, data were gathered from students enrolled in special education programs including remedial and learning disabilities, speech and hearing problems, visual problems, the emotionally disturbed, the motor handicapped, and the trainable mentally retarded.

The purpose of this study was to describe the characteristics and needs of the students in these programs. These data would be used to determine program needs and to serve as baseline data for ongoing statewide evaluation of special education programs.

Sampling of special education students was accomplished at the state level where a register is maintained listing each student in each of the programs. Stratified sampling was used with the sample size depending on the number of students in the program. The number of students rated in each of the samples is as follows:

Remedial Reading and Learning Disabilities	206
Emotionally Disturbed	65
Trainable Mentally Retarded	85
Speech and Hearing	136
Motor Handicapped	14
Other Special Education	128
TOTAL	634

Each of the students in the sample was rated by his teacher with the SIS Student Check Lists. Where possible, the students completed either the SIS Student Questionnaire Level I (Elementary) or Level II (Secondary). Because the standardized achievement and ability tests are, in general, inappropriate for these students, test scores were not collected for this study.

Analysis of the special education data was consistent with the analysis of the data for the general evaluation study. For the purpose of this report, only the total special education data are presented. A separate report is being prepared which will elaborate on the sub-sample data of the special education students. Also, considerable detailed data are available from the State Agency upon request.

The following are ranked items of greatest discrepancy between sources of special education students and the State norms with the special education students scoring lower:

Uses Obscene or Vulgar Language
Talks to Self
Shouts or Yells at Teacher
Obsessed with Sexual Matters
Sarcastic
Shouts or Yells at Students
Frequently Tardy
Conscientious
Inquisitive
Destroys Property
Has Good Logical Reasoning
Good Sport
Dominant
Denies Obvious Things
Has Blank Stare or Faraway Look

The following are ranked items of greatest discrepancy between scores of special education students and the State norms with the special education students scoring higher:

A Leader
Sensitive to Criticism
Likes School
Impulsive - Reacts Quickly
Plays with other Friends (Same Sex)
Courageous
Gets Offended Easily
Happy
Has a Good Sense of Humor
Relaxed
Plays Alone
Wants Own Way
Self-Critical
Knows Names of Friends
Participates Well in Activities

The special education students were rated lower on every item of the SIS Student Achievement Check list than the State norms. In each case, the difference was significant at the .001 level of confidence with the exception of item 29, "neat and orderly" which was significant at the .05 level of confidence.

In terms of problems, the special education students scored higher on each problem listed. The following is a ranking of the problems in terms of the discrepancy between scores of special education students and State norms:

Hyperactive
Slurs Speech
Coordination
Clumsiness
Acts as Though Doesn't Hear
Fear of Pain
Physical Disability
Personal Cleanliness
Presses Hard when Writing
Hearing Problems

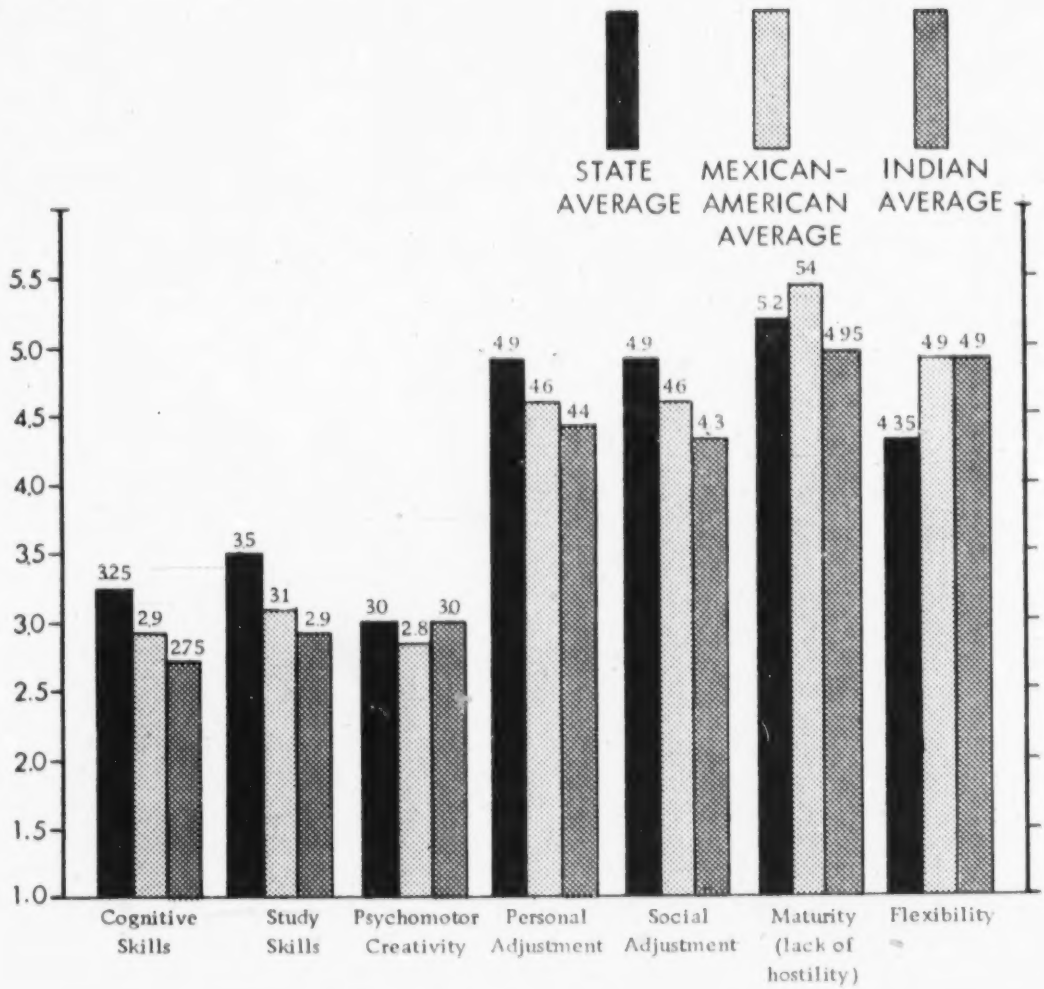
Comparisons were also made between the special education students and State norms for each of the SIS trait scores. The trait score which had the greatest discrepancy (special education students being lower) was cognitive skills followed by study skills, maturity, social adjustment, psychomotor creativity, flexibility, personal adjustment, and reality, in that order.

Study 5 - Special Ethnic Groups:

This study attempted to discover whether or not the needs of students within different ethnic groups are being met at a level comparable to other students. Tables 24 and 25 summarize the mean differences of Black, Mexican-American and Indian students. Students of the different ethnic groups scored lower than average in self-ratings (Table 24) in the academic area and in personal and social adjustment but not in psychomotor creativity, maturity or flexibility. Minority students scored higher than the State norm in flexibility.

Teacher ratings (Table 25) follow a similar pattern. Minority students were rated lowest in cognitive skills which is an academic ability factor. The teachers rated minority students as high as other students in study skills. Minority students were rated higher than State norms in the areas of social adjustment and maturity. Black students were rated higher in psychomotor creativity.

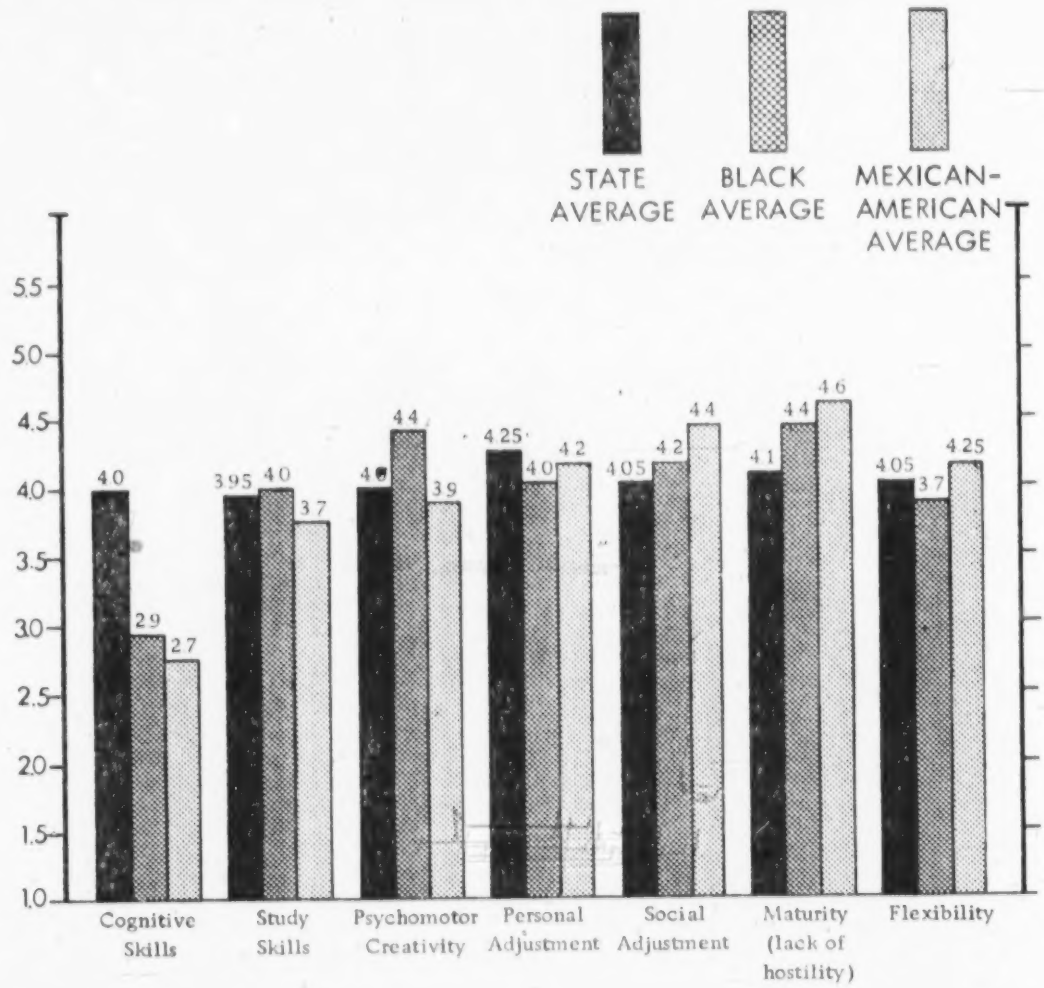
Student-rated ethnic group comparisons.



Comparison of student-rated trait scores for Mexican-American and Indian ethnic group averages and state average of all students.

TABLE 24

Teacher-rated ethnic group comparisons.



Comparison of teacher-rated trait scores for Black and Mexican-American ethnic group averages and state average of all students.

TABLE 25

Study 6 - Students from Low Income Families:

Federal funds are provided for educational programs for students from low income families through Title I of the Elementary-Secondary Education Act. A statewide evaluation of this Title I program has been conducted for the past several years. This evaluation has utilized the SIS for the evaluation which permits comparison of Title I students with State norms. For purposes of this report, the Title I evaluation will be briefly summarized. A more extensive report is available upon request.

Table 26 reports the data from Title I students along with the data from non-Title I students in academic achievement. State means and Title I means are reported for both years 1969 and 1970. Column 5 shows the difference between Title I means and State means for 1969. Column 6 shows the 1970 difference and column 7 shows the difference between 1969 and 1970. In columns 5 and 6, the higher the number, the greater is the difference between Title I and the average student. In column 7, the higher the number, the less Title I students have improved as compared to State norms. The greatest achievement was attained in general reading. The lowest was in mathematics, probably because the students scored close to State mean during the year 1969.

Table 27 has the same format as Table 26 except Table 27 deals with trait scores rather than item scores. A trait consists of a number of items and therefore the data on Table 27 would be more dependable. Greatest growth according to data in Table 27 was in the area of self attitude. The Title I students have improved in all traits with the exception of social and personal adjustment.

TABLE 26

DIFFERENCES BETWEEN STATE AND TITLE I MEANS
AND TRENDS FOR SCHOOL YEARS 1969 AND 1970
FROM SIS INDIVIDUAL ITEMS

	1	2	3	4	5	6	7
Item Description	Title I Means 1969*	State Means 1969*	Title I Means 1970*	State Means 1970*	Difference Between T.I. '69 M and St. M (Col. 1-2)	Difference Between T.I. '70 M and St. M (Col. 3-4)	Difference Between M Differences (Col. 5-6)**
Number of Subjects	317	2010	423	1923			
General Reading	4.43	4.00	4.13	3.99	.43	.14	.29
Vocabulary	4.34	4.01	4.27	4.04	.33	.23	.10
Reading Comprehension	4.42	4.00	4.25	4.01	.42	.24	.18
Learning Ability	4.32	3.90	4.15	3.94	.42	.21	.21
General Mathematics	3.75	3.77	4.17	3.92	-.02	.25	-.27
Willing to Learn	4.07	3.75	3.81	3.75	.32	.06	.26

* Low scores indicate superior performance.

** The higher the difference between the mean differences, the more the Title I students have improved as compared to state norms.

TABLE 27

DIFFERENCES BETWEEN STATE AND TITLE I MEANS
AND TRENDS FOR SCHOOL YEARS 1969 AND 1970
FROM SIS TRAIT SCORES

	1	2	3	4	5	6	7
Trait Description	Title I Means 1969*	State Means 1969*	Title I Means 1970*	State Means 1970*	Difference Between T.I. '69 M and St. M (Col. 1-2)	Difference Between T.I. '70 M and St. M (Col. 3-4)	Difference Between M Differences (Col. 5-6) **
Number of Subjects	317	2010	423	1923			
1--Cognitive Skills	45.73	48.84	45.77	48.23	3.11	2.46	.65
2--Study Skills	43.24	47.87	45.56	47.42	4.63	1.86	2.77
4--Personal Adjustment	43.23	48.27	45.47	50.93	5.04	5.46	-.42
5--Social Adjustment	48.52	48.72	47.78	48.38	.20	.60	-.40
14--Positive Attitude to Self as Learner	19.90	21.13	20.32	18.91	1.23	-1.41	2.64
15--Positive Self Attitude	56.29	59.24	57.42	53.34	2.95	-4.08	7.03
19--Leadership	32.44	34.58	32.80	34.15	2.14	1.35	.79

* The higher the trait score the stronger the trait.

** The higher the difference between the mean differences, the more the Title I students have improved as compared to state norms.

SECTION IV - BASELINE DATA FOR ONGOING EVALUATION

The introduction of this report outlines the goals of education in Utah. This section of the report represents an attempt to categorize the data gathered in this study according to the goals of education in Utah which are aesthetic, emotional, productivity, social, ethical, environmental, intellectual and physical.

Data on affective behavior reported in this study were gathered statewide for the first time; therefore, no longitudinal comparison is possible. These data represent baseline data from which future comparisons can be made.

The findings reported in this section can be compared, to an extent, item by item and trait by trait. Caution should be exercised, however, because many of the differences between items and traits are due to such factors as social desirability; in other words, the students will be rated higher in desirable traits.

For convenience in making comparisons, the traits and items under each goal are ranked from highest to lowest rating. The first items and traits listed under each goal will be those highest and the last ones were those rated lowest. The standardized measures of academic achievement included in this report will also be used as baseline data in the ongoing report, but will not be considered in this section.

The selection of the items and traits to measure each of the respective Utah goals of education was accomplished by a representative committee which was assigned to this task. Understandably, this is a first attempt in comparing measures to stated goals, and future versions will occur both in the measures used and the assignments between goals and measures as educational goals and objectives are further developed and refined.

Each participating district has this same baseline data which will permit the writing of comparable district reports. District data are available to district upon authorized request.

This report is one aspect of an information system which has been outlined in considerable detail by State and district personnel. Additional steps in evaluation will include regional meetings to present the findings of this report, receive suggestions, and offer services in implementation of the findings. There are also procedures outlined to provide ongoing leadership and coordination for major evaluation efforts at both State and local levels.

Descriptive materials relative to the statewide evaluation system are also available upon request.

AESTHETIC

SCALES:	MEAN*
3. Psychomotor creativity	4.03

STUDENT BEHAVIOR CHECK LIST

45. Has a good sense of humor	4.67
46. Keeps things neat and orderly	3.73

STUDENT ACHIEVEMENT CHECK LIST

13. Creative	3.95

EMOTIONAL

SCALES:	MEAN	SCALES:	MEAN
8. Reality	5.07	4. Personal adjustment	3.97
7. Flexibility	4.50	18. Optimistic attitude	3.94
6. Maturity	4.49	19. Leadership	3.94
13. Positive attitude toward others	4.26	15. Positive self attitude	3.91
2. Study skills	4.09	14. Positive attitude--self as learner	3.90
16. Self confidence	4.08	11. Positive school attitude	3.68
10. Positive learning attitude	4.06		

STUDENT BEHAVIOR CHECK LIST

-12. Seeks approval/praise	4.54	-40. Likes to do things alone	4.03
54. Good sport	4.54	-55. Stubborn	4.01
19. Facial expression, has feeling	4.24	-71. Unpredictable	3.99

*A slight adjustment has been made in reporting means, so that the higher the mean, the more frequent the behavior (on the Behavior Check List), the more superior the achievement (on the Achievement Check List), or the greater the problem (on the Problem Check List).

EMOTIONAL (CONT.)

STUDENT BEHAVIOR CHECK LIST (CONT.)

		MEAN
90.	Adjusts to new situations	3.93
-31.	Loses temper with others	3.83
-64.	Frequently tardy	3.83
13.	Enjoys seeing others succeed	3.80
-22.	Shouts or yells at others	3.80
-21.	Uses obscene or vulgar language	3.70
-33.	Sarcastic	3.68
-86.	Denies obvious things	3.64
-43.	Bashful or shy	3.56
89.	Works well under pressure	3.52
-44.	Copies work of others	3.48
75.	Has a positive attitude	3.45
68.	Happy	3.43
28.	Sensitive to criticism	3.34
45.	Has a good sense of humor	3.33
60.	Likes school	3.27
-80.	Wants own way	3.18
25.	Relaxed	2.98
-84.	Over reacts to problems	2.97
-35.	Does opposite of what is asked	2.94
-70.	Gets offended easily	2.90
-39.	Plays alone	2.88
26.	Courageous	2.83
-81.	Impulsive-reacts quickly	2.81
-78.	Self critical	2.79
-24.	Gets into fights	2.74

STUDENT ACHIEVEMENT CHECK LIST

34.	Positive attitude	4.27
31.	Works independently	4.16
35.	Works well under pressure	3.89

STUDENT PROBLEM CHECK LIST

15.	Hyperactive (restless)	1.41
9.	Personal cleanliness	1.38
32.	Acts as though doesn't hear	1.25
6.	Overweight	1.22
4.	Speech problem	1.19
39.	Talks too fast	1.14
19.	Odd mannerisms	1.13
28.	Headaches	1.12
16.	Shakes when nervous	1.11
31.	Fears	1.11
11.	Allergies	1.09
17.	Perspiration problem	1.08
33.	Imagines unreal things	1.08
24.	Obsessed with morbid things	1.07
3.	Stutters	1.06
23.	Overly concerned with death	1.05
30.	Medication	1.05
22.	Has fainting spells	1.01

ENVIRONMENTAL

STUDENT BEHAVIOR CHECK LIST

	MEAN
46. Keeps things neat and orderly	4.27
62. Sees overall picture	3.83

STUDENT ACHIEVEMENT CHECK LIST

1. General comprehension	4.18	23. General Math	4.05
29. Neat and orderly	4.15	18. Well organized	3.91
24. General science	4.06		

INTELLECTUAL

SCALES

1. Cognitive skills	4.11
2. Study skills	4.09

STUDENT BEHAVIOR CHECK LIST

46. Keeps things neat and orderly	4.27	61. Sees detail in things	3.92
50. Has good logical reasoning	4.25	49. Has good judgement	3.43
59. Participates in class discussion	4.22	45. Has a good sense of humor	3.33
57. Has good ideas--resourceful	4.10	62. Sees overall picture	2.97

STUDENT ACHIEVEMENT CHECK LIST

39. Willing to learn	4.41	22. Ability to learn new concepts	4.11
30. Interested in school work	4.22	4. Vocabulary	4.09
17. General learning ability	4.21	24. General Science	4.06
1. General comprehension	4.18	7. Grammar	4.05
16. Memory	4.18	23. General Mathematics	4.05
31. Works independently	4.16	25. General social studies	4.05
2. General reading	4.13	3. Word attack skills	4.02
5. Reading comprehension	4.11		

INTELLECTUAL (CONT.)

STUDENT ACHIEVEMENT CHECK LIST(CONTD.)

	MEAN
32. Accurate	4.01
36. Catches on quickly	4.01
21. Ability to generalize	3.98
15. Concentration	3.95
27. Efficient	3.95
20. Thorough	3.92
18. Well organized	3.91

PHYSICAL

SCALES	MEAN
3. Psychomotor creativity	4.03
9. Athletic ability	3.93

STUDENT BEHAVIOR CHECK LIST

63. Athletic ability	3.52
25. Relaxed	2.98

STUDENT ACHIEVEMENT CHECK LIST

26. Quality of drawings	4.11
12. Handwriting	4.02

STUDENT PROBLEM CHECK LIST

15. Hyperactive (restless)	1.41
9. Personal cleanliness	1.38
14. Coordination	1.33
1. Visual problem	1.26
18. Presses hard when writing	1.25
20. Clumsiness	1.23
6. Overweight	1.22
40. Slurs speech	1.20
4. Speech problem	1.19
5. Underweight	1.16
10. Physical disability	1.15
39. Talks too fast	1.14
28. Headaches	1.12
16. Shakes when nervous	1.11
11. Allergies	1.09
17. Perspiration problem	1.08
2. Hearing problem	1.05
30. Medication	1.05
12. Heart trouble	1.02
13. Has convulsions or seizures	1.01
22. Has fainting spells	1.01

PRODUCTIVITY

MEAN

STUDENT BEHAVIOR CHECK LIST

59.	Participates in class discussion	4.22	36.	Participates well in activities	3.29
57.	Has good ideas	4.10	69.	Ambitious	3.17
65.	Fast in work	3.95	27.	Keeps working at things	3.15
89.	Works well under pressure	3.52			

STUDENT ACHIEVEMENT CHECK LIST

28.	Dependable	4.33	20.	Thorough	3.92
13.	Creative	4.05	35.	Works well under pressure	3.89
27.	Efficient	3.95			

SOCIAL

SCALES		MEAN			
12.	Positive community attitude	4.58	16.	Self confidence	4.08
6.	Maturity	4.49	19.	Leadership	3.94
5.	Social adjustment	4.41	11.	Positive school attitude	3.68
13.	Positive attitude toward others	4.26			

STUDENT BEHAVIOR CHECK LIST

1.	Friendly	4.78	42.	Takes interest in problems of others	3.93
54.	Good sport	4.54			
48.	Fun to be around	4.49	90.	Adjusts to new situations	3.93
4.	Well liked	4.25			
16.	Helps others	4.22	30.	Acts as a peacemaker	3.89
-29.	Talkative	4.22			
7.	Relates well with adults	4.09	-31.	Loses temper with others	3.83
-40.	Likes to do things alone	4.03			

SOCIAL (CONT.)

STUDENT BEHAVIOR CHECK LIST

		MEAN
13.	Enjoys seeing others succeed	3.80
-22.	Shouts or yells at others	3.80
-21.	Uses obscene or vulgar language	3.70
-33.	Sarcastic	3.68
10.	Accepts new students or strangers	3.64
37.	Plays with friends (same sex)	3.61
-43.	Bashful or shy	3.56
36.	Participates well in activities	3.29
38.	Plays with friends (opposite sex)	3.03
-88.	Offends others	2.95
-35.	Does opposite of what is asked	2.94
-39.	Plays alone	2.88
-24.	Gets into fights	2.74
3.	A leader	2.06

STUDENT ACHIEVEMENT CHECK LIST

28.	Dependable	4.33
25.	General Social Studies	4.05

STUDENT PROBLEM CHECK LIST

9.	Personal cleanliness	1.38
17.	Perspiration problem	1.08

ETHICAL

STUDENT BEHAVIOR CHECK LIST

47.	Conscientious	4.88
8.	Obedient	4.51
16.	Helps others	4.22
42.	Takes interest in problems of others	3.93
30.	Acts as a peace-maker	3.89
75.	Has a positive attitude	3.45
26.	Courageous	2.83

STUDENT ACHIEVEMENT CHECK LIST

28.	Dependable	4.33

APPENDIX A

SUMMARY OF SIS DATA OBTAINED FOR THIS REPORT

BIOGRAPHIC DATA OF ELEMENTARY STUDENTS

DO YOU LIKE SCHOOL? (SQI Item 1)

YES	46%
SOMETIMES	49%
NO	5%

ARE YOU A.....
(SQI Item 2)

BOY	52%
GIRL	48%

HOW MANY TIMES HAS YOUR FAMILY MOVED? (SQI Item 3)

(NONE)	19%
ONE	25%
TWO	10%
THREE	13%
FOUR	33%

DO YOU DO SCHOOL WORK AT HOME
(SQI Item 4)

EVERY NIGHT	5%
USUALLY	29%
SOMETIMES	62%
NO	4%

WHO IS THE MOST FUN TO PLAY WITH?
(SQI Item 5)

BOYS	31%
GIRLS	18%
BOTH	50%
NEITHER	1%

DO YOU LIVE WITH.....
(SQI Item 6)

YOUR MOTHER & DAD?	90%
ONLY YOUR MOTHER?	7%
ONLY YOUR DAD?	1%
YOUR RELATIVES?	1%
SOMEONE ELSE?	1%

HOW DO YOU USUALLY GET TO SCHOOL?
(SQI Item 7)

ON A BUS	27%
WALK	52%
RIDE IN A CAR	10%
RIDE A BIKE	10%
OTHER	1%

IS THE SCHOOL WORK TOO HARD FOR YOU? (SQI Item 8)

YES	2%
SOMETIMES	60%
NO	38%

WHICH HAND DO YOU USE MOST?

YOUR RIGHT HAND	86%
YOUR LEFT HAND	9%
BOTH THE SAME	5%

HOW MANY BATHROOMS DO YOU HAVE IN YOUR HOME? (SQI Item 10)

ONE	7%
TWO	51%
THREE OR MORE	30%
OTHER	12%

DO YOU KNOW WHAT YOU WANT TO BE WHEN YOU GROW UP?

YES	37%
I THINK SO	34%
I DON'T KNOW	29%

DO YOU GO TO A DOCTOR.....
(SQI Item 12)

ABOUT ONCE A YEAR?	75%
ABOUT ONCE A MONTH?	18%
ABOUT EVERY WEEK?	1%
OTHER	6%

SELF-RATED BEHAVIOR CHARACTERISTICS OF ELEMENTARY STUDENTS

(SQI Items 34 - 65)

HOW OFTEN DO YOU.....	ADJUSTED MEAN*
ACT FRIENDLY WITH OTHERS?	3.03
REMEMBER NAMES?	2.92
FEEL HAPPY?	2.88
LAUGH?	2.86
TALK WITH GROWN-UPS?	2.84
TALK?	2.82
DO THINGS WELL?	2.66
FEEL LIKE OTHER CHILDREN LIKE YOU?	2.60
ANSWER THE TEACHER'S QUESTIONS?	2.57
FEEL YOU'RE GOOD IN SPORTS?	2.53
WORK FAST?	2.42
ASK TEACHER FOR HELP?	2.42
HELP OTHER STUDENTS?	2.41
GET TIRED?	2.35
GET MAD?	2.31
TALK TO STUDENTS YOU DON'T KNOW?	2.25
WORRY?	2.25
TALK TO YOURSELF?	2.19
GET UPSET?	2.18
LIKE TO BE ALONE?	2.16
ASK OTHER STUDENTS FOR HELP?	2.15
GET OTHER CHILDREN TO DO WHAT YOU WANT?	1.99
WANT YOUR OWN WAY?	1.99
GET INTO FIGHTS?	1.94
CRY?	1.89
HIT OTHER CHILDREN?	1.88
FEEL THINGS AREN'T REAL?	1.87
DO BAD THINGS?	1.83
TATTLE?	1.74
SAY BAD WORDS?	1.74

*High score indicates greater frequency or "more" of an item. A score of 2.5 is about midway between "often" and "sometimes".

BIOGRAPHIC DATA OF SECONDARY STUDENTS

WITH WHOM DO YOU LIVE? (SQII Item 2)

NATURAL MOTHER	92%
STEP MOTHER	2%
FOSTER MOTHER	3%
ADOPTIVE MOTHER	1%
FEMALE RELATIVE	1%
OTHER	1%

WITH WHOM DO YOU LIVE? (SQII Item 3)

NATURAL FATHER	84%
STEP FATHER	5%
FOSTER FATHER	3%
ADOPTIVE FATHER	2%
MALE RELATIVE	1%
OTHER	5%

ARE YOU UNDER A DOCTOR'S CARE? (SQII Item 4)

NO	77%
PARTLY	17%
COMPLETELY	6%

HOW MANY DIFFERENT FAMILIES HAVE YOU LIVED WITH? (SQII Item 5)

ONE	86%
TWO	7%
THREE OR MORE	3%
OTHER	4%

WHAT LANGUAGE IS SPOKEN IN YOUR HOME? (SQII Item 6)

ENGLISH	85%
ENGLISH AND FOREIGN	4%
FOREIGN ONLY	2%
OTHER	11%

HOW MANY TIMES HAVE YOU MOVED? (SQII Item 7)

NONE	31%
1 - 2	27%
3 - 5	21%
6 - 8	9%
9 OR MORE	7%
OTHER	5%

HOW OFTEN DO YOU DATE? (SQII Item 8)

MARRIED	.2%
ENGAGED	1.4%
GOING STEADY	6%
SEVERAL TIMES A WEEK	5%
SEVERAL TIMES A MONTH	12%
SEVERAL TIMES A YEAR	24%
NEVER	48%
OTHER	3%

IS THE HOMEWORK YOU ARE GIVEN.. (SQII Item 9)

MUCH TOO HARD?	8%
TOO HARD?	48%
TOO EASY?	27%
MUCH TOO EASY?	1%
OTHER?	16%

DO YOU ENJOY SCHOOL? (SQII Item 10)

VERY MUCH	9%
YES	32%
IT'S OKAY	49%
NO	7%
NOT AT ALL	3%

ARE YOUR PARENTS..... (SQII Item 11)

LIVING TOGETHER?	87%
DIVORCED?	6%
SEPARATED?	1%
BOTH DECEASED?	.2%
MOTHER DECEASED?	1%
FATHER DECEASED?	4%
OTHER?	.8%

IS THE HOMEWORK YOU ARE GIVEN USEFUL? (SQII Item 12)

DEFINITELY	12%
YES	71%
NO	15%
DEFINITELY NOT	2%

ARE YOU.....
(SQII Item 13)

RIGHT HANDED?	89%
LEFT HANDED?	7%
AMBIDEXTROUS?	4%

WHO IS THE BOSS IN YOUR HOME?
(SQII Item 14)

NO ONE	7%
FATHER	76%
MOTHER	11%
A GRANDPARENT	.5%
OTHER	5%

CAR DRIVING.....
(SQII Item 15)

I'M NOT OLD ENOUGH TO DRIVE	72%
I'M OLD ENOUGH BUT DON'T HAVE A LICENSE	7%
I DRIVE MY OWN CAR	4%
I DRIVE THE FAMILY CAR	16%
I HAVE A LICENSE BUT DON'T DRIVE	1%

WOULD YOU ATTEND SCHOOL IF YOU DIDN'T HAVE TO? (SQII Item 16)

DEFINITELY	37%
YES	34%
PROBABLY	8%
PROBABLY NOT	5%
NO	2%
ABSOLUTELY NOT	14%

WHERE WOULD YOU LIKE TO PERMANENTLY LIVE AFTER YOU ARE THROUGH WITH HIGH SCHOOL? (SQII Item 17)

WHERE I LIVE NOW	33%
SALT LAKE CITY	3%
SOMEWHERE ELSE IN UTAH	18%
IN A WESTERN STATE	25%
IN A CENTRAL STATE	2%
IN AN EASTERN STATE	3%
OUTSIDE THE U.S.	4%
OTHER	12%

WHAT COURSE OF STUDY (MAJOR) ARE YOU TAKING IN SCHOOL?
(SQII Item 18)

I DON'T KNOW	44%
INDUSTRIAL	2%
COMMERCIAL-BUSINESS	3%
GENERAL	29%
COLLEGE PREP	8%
AGRICULTURAL	2%
HOMEMAKING	2%
OTHER	10%

DO YOU LIKE YOUR CHOICE OF STUDY (MAJOR) (SQII Item 19)

DON'T HAVE ONE	51%
LIKE IT VERY MUCH	16%
LIKE IT SOME	20%
DON'T CARE	3%
DISLIKE IT	1%
DISLIKE IT VERY MUCH	1%
OTHER	8%

HOW DO YOU DECIDE ON YOUR FUTURE PLANS? (SQII Item 20)

I HAVEN'T DECIDED	34%
BY MYSELF	26%
WITH MY PARENTS	28%
MY PARENTS DECIDE	.4%
WITH A COUNSELOR	.5%
WITH A RELATIVE	.6%
WITH A FRIEND	6%
OTHER	4%

HOW MANY OF YOUR BROTHERS AND SISTERS DROPPED OUT OF SCHOOL?
(SQII Item 21)

NONE	88%
ONE	8%
TWO	2%
THREE	.6%
FOUR	.4%
FIVE OR MORE	.5%

WOULD YOU LIKE TO SEE A COUNSELOR? (SQII Item 22)

YES	12%
POSSIBLY	34%
NO	54%

ARE YOU PRESENTLY WORKING? (SQII Item 23)

NO	54%
PART-TIME	33%
FULL TIME (TEMPORARY)	4%
OTHER	9%

WHAT ARE YOUR FUTURE PLANS? (SQII Item 24)

HIGH SCHOOL GRADUATION	21%
CORRESPONDENCE SCHOOL	.2%
BUSINESS SCHOOL	4%
TECHNICAL-TRADE SCHOOL	12%
JUNIOR COLLEGE	9%
4-YEAR COLLEGE	39%
APPRENTICESHIP	.4%
EMPLOYMENT ONLY	1.4%
OTHER	13%

HOW CERTAIN ARE YOU OF YOUR OCCUPATIONAL CHOICE? (SQII Item 25)

HAVEN'T DECIDED	35%
VERY UNCERTAIN	4%
UNCERTAIN	15%
SOMEWHAT CERTAIN	28%
CERTAIN	8%
VERY CERTAIN	5%
POSITIVE	4%
OTHER	1%

DO YOU WANT TO GRADUAGE FROM HIGH SCHOOL? (SQII Item 26)

DEFINITELY	71%
YES	25%
MAYBE	2%
NOT REALLY	.6%
NO	.3%
NOT AT ALL	.2%
OTHER	.9%

DO YOU WANT TO GRADUATE FROM COLLEGE? (SQII Item 27)

DEFINITELY	32%
YES	34%
MAYBE	18%
NOT REALLY	5%
NO	6%
NOT AT ALL	1%
OTHER	4%

WHEN DID YOU DECIDE ON YOUR OCCUPATION? (SQII Item 28)

STILL UNDECIDED	53%
WHILE IN HIGH SCHOOL	13%
WHILE IN JUNIOR HIGH SCHOOL	25%
WHILE IN ELEMENTARY SCHOOL	5%
BEFORE I STARTED SCHOOL	1%
OTHER	3%

HOW DID YOU DECIDE ON YOUR PRESENT JOB? (SQII Item 29)

PERSONAL CONTACT	34%
FRIENDS	20%
FAMILY	39%
TEACHER	1%
NEWSPAPER AD	1%
OTHER	5%

DO YOU PLAN TO WORK FOR YOUR PRESENT EMPLOYER PERMANENTLY? (SQII Item 30)

DEFINITELY	2%
PROBABLY	6%
UNCERTAIN	18%
DEFINITELY NOT	26%
OTHER	48%

HOW MUCH MONEY DO YOU EARN A WEEK? (SQII Item 31)

NONE	34%
$1 - $2	20%
$3 - $5	17%
$6 - $10	10%
$11 - $15	4%
$16 - $20	3%
MORE THAN $20	6%

WHAT IS YOUR MAIN REASON FOR WORKING? (SQII Item 32)

TO HELP SUPPORT MYSELF	49%
TO HELP SUPPORT MY FAMILY	4%
FOR EXPERIENCE	13%
I ENJOY WORKING	16%
OTHER	17%

SPECIFY WHAT COLLEGE YOU PLAN TO ATTEND.....

NONE	12%
UNIVERSITY OF UTAH	4%
BRIGHAM YOUNG UNIVERSITY	23%
UTAH STATE UNIVERSITY	9%
COLLEGE OF EASTERN UTAH	2%
DIXIE COLLEGE	8%
SNOW COLLEGE	2%
WEBER STATE COLLEGE	3%
WESTMINSTER	.2%
STEVENS-HENAGER COLLEGE	1%
L.D.S. BUSINESS COLLEGE	1%
PROVO TRADE-TECH COLLEGE	3%
UTAH TECHNICAL COLLEGE AT S.L.	2%
A JUNIOR COLLEGE	3%
A 4-YEAR COLLEGE	8%
A BUSINESS COLLEGE	2%
TECHNICAL OR TRADE SCHOOL	6%
OTHER	11%

HOW DO YOU USUALLY GET TO WORK? (SQII Item 34)

WALK	21%
RIDE A BUS	3%
RIDE A BIKE	6%
DRIVE A CAR	6%
RIDE IN A CAR	15%
OTHER	49%

HOW MUCH MONEY DO YOU SPEND A WEEK? (SQII Item 35)

NONE	10%
$1 - $2	48%
$3 - $5	26%
$6 - $10	6%
$11 - $15	1%
$16 - $20	.6%
MORE THAN $20	1%

SELF-RATED BEHAVIOR CHARACTERISTICS OF SECONDARY STUDENTS

(SQII Items 90 - 147)

RATE YOURSELF AS TO HOW MUCH THE FOLLOWING ITEMS ARE LIKE YOU:	ADJUSTED MEAN*
FRIENDLY	5.74
HAVE MANY FRIENDS (SAME SEX)	5.56
LIKE TO SEE OTHERS	5.56
HAPPY	5.26
GOOD SPORT	5.24
GETS ALONG WITH ADULTS	5.22
ABLE TO DO THINGS WELL	5.07
DO WHAT I AM TOLD	5.05
REMEMBER PEOPLE'S NAMES	4.99
THE KIDS LIKE ME	4.96
TAKE PART IN ACTIVITIES	4.95
HAVE GOOD SENSE OF HUMOR	4.93
LIKE NEW STUDENTS OR STRANGERS	4.91
LIKE NEW SITUATIONS	4.85
FUN TO BE AROUND	4.79
LIKE TO KEEP BUSY	4.78
HAVE MANY FRIENDS (OPPOSITE SEX)	4.70
PARTICIPATES IN CLASS DISCUSSIONS	4.69
HELP OTHER STUDENTS	4.63
BRAVE	4.60
KEEPS AT THINGS UNTIL FINISHED	4.59
GOOD ATHLETIC ABILITY	4.55
LIKE TO PREVENT ARGUMENTS	4.53
A GOOD LEADER	4.52
KEEPS THINGS ORDERLY	4.51
CALM AND RELAXED	4.50
MAKES WISE DECISIONS	4.49
TALKS A LOT	4.45
ASKS STUDENTS FOR HELP	4.41
ASKS TEACHER FOR HELP	4.34
INTERESTED IN PROBLEMS OF OTHERS	4.12
COMPLETE MY WORK FAST	4.04
DON'T WORRY TOO MUCH	3.96
UNPREDICTABLE	3.95
DON'T LIKE CRITICISM	3.83
LOSE MY TEMPER	3.74
STUBBORN	3.70
USUALLY DO THINGS ALONE	3.57
WANT MY OWN WAY	3.54
GET MY FEELINGS HURT EASILY	3.52
BASHFUL OR SHY	3.45
USUALLY TIRED OR SLEEPY	3.43
DISSATISFIED WITH MYSELF	3.36
TALK BACK	3.32

*High score indicates greater frequency or "more" of an item. A score of 4 is "sometimes" or about midway between "always" and "never".

BEHAVIOR CHARACTERISTICS (CONT.)
(SQII Items 90 - 147)

	ADJUSTED MEAN*
ALWAYS GIGGLING	3.22
USUALLY FEEL GUILTY	2.85
USE VULGAR LANGUAGE	2.80
HIT OTHERS	2.79
CRY EASILY	2.77
SEEM TO BE IN A DREAM	2.77
SHOUT AT OTHER STUDENTS	2.76
TALK TO MYSELF	2.74
OFTEN TARDY	2.60
ACT CHILDISH	2.40
GET INTO FIGHTS	2.37
DO THE OPPOSITE OF WHAT I AM ASKED	2.35
SOMETIMES I TATTLE.	2.28
SHOUT AT TEACHER	1.86

*High score indicates greater frequency or "more" of an item. A score of 4 is "sometimes" or about midway between "always" and "never".

TEACHER RATINGS OF STUDENT ACHIEVEMENT

(SACL Items 1 - 42)

	ADJUSTED MEAN*
SHOWS LOYALTY	4.50
WILLING TO LEARN	4.41
DEPENDABLE	4.33
POSITIVE ATTITUDE	4.27
SPEAKING LANGUAGE	4.22
INTERESTED IN SCHOOL WORK	4.22
DOES FAIR SHARE OF WORK	4.21
GENERAL LEARNING ABILITY	4.21
MEMORY	4.18
GENERAL COMPREHENSION	4.18
GENERAL SPEAKING ABILITY	4.18
WORKS INDEPENDENTLY	4.16
PRONUNCIATION	4.16
NEAT AND ORDERLY	4.15
SELF EXPRESSION (ORAL)	4.15
GENERAL READING	4.13
COMPLETES ASSIGNMENTS	4.12
QUALITY OF DRAWINGS	4.11
DRAWING ABILITY	4.11
ABILITY TO LEARN NEW CONCEPTS	4.11
READING COMPREHENSION	4.11
ACCEPTS CRITICISM	4.09
VOCABULARY	4.09
GENERAL SCIENCE	4.06
GENERAL SOCIAL STUDIES	4.05
GENERAL MATH	4.05
CREATIVITY	4.05
GRAMMAR	4.05
WORD ATTACK SKILLS	4.02
HANDWRITING	4.02
ACCURATE	4.01
CATCHES ON QUICKLY	4.01
ABILITY TO GENERALIZE	3.98
EFFICIENT	3.95
CONCENTRATION	3.95
THOROUGH	3.92
WELL ORGANIZED	3.91
WORKS WELL UNDER PRESSURE	3.89
GENERATES NEW IDEAS	3.88
SELF EXPRESSION (WRITTEN)	3.84
QUESTIONS FACTS, SOURCES	3.71
PERSUASIVE IN DISCUSSIONS	3.66

*High score indicates greater frequency or "more" of an item. A score of 4 is "average", or about midway between "superior" and "poor".

TEACHER RATINGS OF STUDENT BEHAVIORS
(SBCL Items 1-90)

	ADJUSTED MEAN*
CONSCIENTIOUS	4.88
FRIENDLY	4.78
INQUISITIVE	4.64
SEEKS APPROVAL?PRAISE	4.54
GOOD SPORT	4.54
OBEDIENT	4.51
FUN TO BE AROUND	4.49
ASKS TEACHER FOR HELP	4.44
AWARE OF TIME	4.35
ACTIVE	4.34
RELAXED AND EASY GOING	4.33
KNOWS NAMES OF FRIENDS	4.32
LOOKS IN EYES WHILE TALKING TO YOU	4.30
KEEPS THINGS NEAT AND ORDERLY	4.27
WELL LIKED	4.25
HAS GOOD LOGICAL REASONING	4.25
FACIAL EXPRESSION HAS FEELING	4.24
TALKATIVE	4.22
PARTICIPATES IN CLASS DISCUSSIONS	4.22
HELPS OTHERS	4.22
LIKES TO ATTRACT ATTENTION	4.19
HAS GOOD IDEAS - RESOURCEFUL	4.10
RELATES WELL WITH ADULTS	4.09
WANTS PHYSICAL CONTACT	4.06
LIKES TO DO THINGS ALONE	4.03
STUBBORN	4.01
TATTLES	4.00
UNPREDICTABLE	3.99
TALKS TO SELF	3.96
FAST IN WORK	3.95
DOMINANT	3.94
ADJUSTS TO NEW SITUATIONS	3.93
TAKES INTEREST IN PROBLEMS OF OTHERS	3.93
SEES DETAILS IN THINGS	3.92
ACTS AS A PEACEMAKER	3.89
ASKS STUDENTS FOR HELP	3.84
FREQUENTLY TARDY	3.83
LOSES TEMPER WITH STUDENTS	3.83
SHOUTS OR YELLS AT OTHER STUDENTS	3.80
ENJOYS SEEING OTHERS SUCCEED	3.80
TALKS EVEN WHEN NO ONE IS LISTENING	3.74
USES OBSCENE OR VULGAR LANGUAGE	3.70
SARCASTIC	3.68
DENIES OBVIOUS THINGS	3.64
HAS A BLANK STARE OR FARAWAY LOOK	3.64
ACCEPTS NEW STUDENTS OR STRANGERS	3.64
LOSES TEMPER WITH TEACHER	3.63
PLAYS WITH FRIENDS (SAME SEX)	3.61
BASHFUL OR SHY	3.56

*High score indicates greater frequency or "more" of an item. A score of 4 is "average" or about midway between "yes" and "no".

	ADJUSTED MEAN *
ACTS YOUNGER THAN AGE	3.54
WORKS WELL UNDER PRESSURE	3.52
ATHLETIC ABILITY	3.52
CONFIDENT	3.50
COPIES WORK OF OTHERS	3.48
HAS POSITIVE ATTITUDE	3.45
HAS GOOD JUDGEMENT	3.43
HAPPY	3.43
HITS PEOPLE OFTEN	3.35
SENSITIVE TO CRITICISM	3.34
HAS A GOOD SENSE OF HUMOR	3.33
PARTICIPATES WELL IN ACTIVITIES	3.29
DESTROYS PROPERTY	3.27
GIGGLES OFTEN	3.37
LIKES SCHOOL	3.27
OBSESSED WITH SEXUAL MATTERS	3.23
SHOUTS OR YELLS AT TEACHER	3.21
WANTS OWN WAY	3.18
HAS FANTASIES	3.18
AMBITIOUS	3.17
KEEPS WORKING AT THINGS	3.15
MAKES STRANGE FACES/MOVEMENTS FOR NO APPARENT REASON	3.08
CRIES OFTEN	3.07
USUALLY TIRED OR SLEEPY	3.05
PLAYS WITH FRIENDS (OPPOSITE SEX)	3.03
SAYS AND DOES HUMOROUS THINGS	3.02
RELAXED	2.98
OVER-REACTS TO PROBLEMS	2.97
SEES OVERALL PICTURE	2.97
OFFENDS OTHERS	2.95
DOES OPPOSITE OF WHAT IS ASKED	2.94
GETS OFFENDED EASILY	2.90
PLAYS ALONE	2.88
COURAGEOUS	2.83
IMPULSIVE - REACTS QUICKLY	2.81
SELF-CRITICAL	2.79
GETS IN FIGHTS	2.74
SMILES AND LAUGHS FOR NO APPARENT REASON	2.64
HAS TANTRUMS	2.58
GUILT FEELINGS	2.58
A LEADER	2.06

*High score indicates greater frequency or "more" of an item. A score of 4 is "average" or about midway between "yes" and "no".

TEACHER RATINGS OF STUDENT PROBLEMS

(SPCL Items 1 - 40)

	ADJUSTED MEAN*
HYPERACTIVE (RESTLESS)	1.41
PERSONAL CLEANLINESS	1.38
COORDINATION	1.33
VISUAL PROBLEMS	1.26
ACTS AS THOUGH DOESN'T HEAR	1.25
PRESSES HARD WHEN WRITING	1.25
CLUMSINESS	1.23
OVERWEIGHT	1.22
SLURS SPEECH	1.20
SPEECH PROBLEM	1.19
UNDERWEIGHT	1.16
PHYSICAL DISABILITY	1.15
PALE COMPLEXION	1.14
TALKS TOO FAST	1.14
EATING PROBLEM	1.13
ODD MANNERISMS	1.13
FEAR OF PAIN	1.12
HEADACHES	1.12
SENSITIVE OF BEING SHORT	1.11
SHAKES WHEN NERVOUS	1.11
FEARS	1.11
ALLERGIES	1.09
IMAGINES UNREAL THINGS	1.08
PERSPIRATION PROBLEM	1.08
SENSITIVE OF BEING TALL	1.07
OBSESSED WITH MORBID THINGS	1.07
STUTTERS	1.06
BREATH PROBLEM	1.06
OVERLY CONCERNED WITH DEATH	1.05
HEARING PROBLEM	1.05
OBSESSED WITY BODY	1.05
MEDICATION	1.05
SKIN MOIST AND COLD	1.02
HEART TROUBLE	1.02
CHRONIC COUGHING	1.02
CHRONIC YAWNING	1.02
HAS FAINTING SPELLS	1.01
CHRONIC HICCUPS	1.01
HAS CONVULSIONS OR SEIZURES	1.01
CHRONIC SNEEZING	1.00

*A score of 1 represents "no problem", 2 is "least serious" and 7 is "most serious".

APPENDIX B

POSITION PAPER ON EVALUATION

POSITION PAPER ON EVALUATION

Evaluation is the process of measuring and interpreting the relative success or failure in the attainment of defined educational goals and objectives. Sound evaluation is dependent upon the degree to which educational goals have been defined in measurable terms as well as on the preciseness of the measuring device or technique. A related concern in evaluation is content validity or the relevancy of defined educational objectives to real-life objectives for the learners. It is recognized that many educational goals are vague and difficult to describe in measurable terms. However, the importance of such goals should not be judged solely by their measurability. Educational objectives that truly reflect the educational goals should be determined first and then procedures should be employed to provide the best possible evaluation.

New approaches will continue to expand evaluation potential. Many kinds of measurement instruments and techniques are being developed to permit assessment of subtle variables such as attitudes, feelings, and interests, as well as student characteristics in relationship to learning. The complexity of measuring student behavior mandates the use of multiple supportive instruments, thereby basing conclusions on several measures rather than one.

The role of evaluation in education is of paramount importance. It can serve as a powerful strategy for the improvement of education. Evaluation provides the means for determining the degree to which objectives are being achieved; it also permits comparison of achievement levels of different types of students and the affect of various kinds of programs, facilities and materials. Without evaluation, effectiveness of the educational program cannot be determined and improvements cannot be systematically initiated. Educators tend to strive more diligently to achieve success in those areas of education which can be measured, whether the measurement be in terms of test scores, the number of school dropouts, attendance, observation, or other factors.

Each educational unit (State, district, school, etc.) should conduct systematic rather than fragmented evaluation through a system rather than by fragmented projects. This system should be comprehensive enough to be usable by all levels of the educational community from federal to local and therefore permit multi-use of information. On the other hand, the system should be flexible enough to meet unique decision making needs at any level.

SUPPORTING DOCUMENT FOR THE POSITION PAPER ON EVALUATION

GENERAL:

1. Each educational unit (state, district, school, etc.) should conduct systematic rather than fragmented evaluation through a system rather than by fragmented projects. This system should be comprehensive enough to be usable by all levels of the educational community from federal to local and therefore permit multi-use of information. On the other hand, the system should be flexible enough to meet unique decision making needs at any level.

2. Content of all evaluation systems should be based on a hierarchy of valid and measurable objectives which are stated in behavioral terms whenever possible and based upon identified and documented needs.

3. Statewide evaluation should be an integral part of programming and planning and budgeting at the state and local levels, and be supported with documented evidence.

4. An evaluation system should provide measures of attainment of educational objectives adopted by the State Course of Study Committee in addition to those of unique importance to a local area.

5. Statewide evaluation should include in addition to cognitive achievement data, measures of psycho-motor and affective behavior. Reporting of achievement should include related aptitude measures or level of expectation of the student or population being measured.

6. One or a small number of specific clusters of objectives should be singled out for evaluation each year. This will permit concentrated effort with a restricted number of objectives at any one time.

7. An evaluation system should include an ongoing follow-up of students after they have left the public school programs.

8. Descriptive information should be available on each school and district as part of the system. This should include at least data on staff, facilities, policies, equipment, curricula, organization, and budget.

V

9. A formal State report should be written every two or three years and should cover the broad categories of student objectives adopted by the Utah State Course of Study Committee. Those presently being considered for adoption include:

   a. The inquiring mind as exemplified by a continuing desire for knowledge, a continuing interest in current problems and the habit of weighing alternatives and creatively applying them to the solution of these problems

   b. A knowledge of fundamental concepts about the world environment and man's relationship to it.

   c. Proficiency in the use of modes of communication.

   d. A dedication to the task of improving America, striving for solutions to its continuing domestic and world problems and upgrading the lives of all people.

   e. Maintenance of health, achievement of a high level of personal fitness and the acquisition of wholesome leisure skills.

   f. An emotionally stable person.

   g. A moral standard of behavior.

   h. A knowledge of inter-relationships of nature and the cultural arts and the ability to utilize all of the senses both to make aesthetic judgements about the total environment and to enrich his own life.

   i. Information and guidance for wise occupational choice and opportunities for adequate career development.

   Presently available sources of these data are Achievement and IQ test scores, accreditation information, AFQT scores, Advanced Placement and Information, the Student Information System (SIS), Project Follow-Up and visits to schools by State Specialists.

10. The concept of statewide evaluation should be longitudinal; i.e. related data should be gathered at periodic time intervals to permit time studies and predictions.

11. Reports published on findings of the evaluation should emphasize variables having objective data. Extreme caution should be exercised when reporting or analyzing subjective data.

12. Normally, evaluative data should consist of change scores rather than a point on a continuum. In other words, success of a given program is not where students are, but how well they are progressing in given areas and what programs or program components are associated with this progress.

13. Insofar as possible, the system should provide for the capacity to intercorrelate any of the variables being measured. This will require a statewide student numbering system in order to determine achievement of students having specific abilities, behavior characteristics, social, economic backgrounds, etc.

14. The specific application of each instrument or procedure employed within an educational evaluation system should be validated according to acceptable measurement standards.

15. The evaluation system should employ a computer-[illegible]ed filing system to allow maximum accessibility to all obje[illegible]ive data.

16. Wherever possible, sampling procedures will be used as a means of reducing the time and expense of evaluation.

17. The confidentiality of student, school and district information should always be respected. Specifically, (a) each student should have the option of providing or not providing personal information and (b) no individual district data will be released by the Office of the State Superintendent of Public Instruction without permission of the district superintendent.

ORGANIZATION:

18. Written policies covering the use of confidential information should be developed by the Office of the State Superintendent of Public Instruction and local districts.

19. The evaluation system will require adequate staff to give direction to the overall development. A carefully documented statement of manpower requirements and detailed descriptions of the role and function of each staff member will be required to determine what staffing is needed.

20. The Planning Council of the Office of the State Superintendent of Public Instruction will provide leadership for the system.

21. Special studies on the effectiveness of specific programs should be included upon the recommendation of the Planning Council and the approval of the Executive Committee.

22. The development of the statewide evaluation system and subsequent modification should involve local administrators and other personnel responsible for evaluation.

23. District and school personnel concerned with evaluation should become participants in the statewide evaluation system to promote cooperation and coordination. Local evaluation efforts should be compatible with the statewide system.

ACCREDITATION:

24. Wherein possible, the accreditation program should be consistent with the evaluation system. Whatever school variables or learner objectives are being used for criteria for accreditation should also be included in the evaluation system and therefore should meet the standards of the system.

NATIONAL ASSESSMENT:

25. Wherein possible, the evaluation system should be consistent with national assessment in order to provide national, state and local comparisons.

26. National assessment, however, will not be expanded within the State, unless such efforts meet the standards of the evaluation system.

STUDENT PROGRESS EVALUATION AND REPORTING:

27. Effective evaluation of student progress should include specific indicators about a student in all pertinent areas, rather than to reduce all this information to a single letter grade.

28. Student progress evaluation and reporting should be focused on the same measures of achievement that are contained in the evaluation system. The reporting should describe student objectives, the extent to which a student has attained a given objective, and the rate of progress being made in the area.

29. In most courses, teacher ratings of student academic achievement should not be influenced by criteria such as tardiness, obedience to given rules, purchasing supplies and equipment, neatness, etc. Pertinent personality variables should be reported independently

of academic achievement. Relatedly, evaluation of student progress should never be used as a disciplinary tool.

30. An evaluating and reporting system should contain a clear statement of its purposes.

31. An evaluating and reporting system must provide a statement of objectives or purposes of the specific course or program in which progress or achievement is being reported.

32. An evaluating and reporting system should indicate the methods by which a student's progress toward the specific purposes of a course or program is measured.

33. An evaluating and reporting system should provide for student self-appraisal in relation to stated purposes.

34. An evaluating and reporting system should communicate specific areas in which weaknesses exist in order to define areas in need of a more "in-depth" evaluation, or else indicate ways in which they may be strengthened.

35. An evaluating and reporting system should specify areas of special abilities and suggest ways in which these special strengths may be developed.

36. Those affected by an evaluating and reporting system should be involved in its development insofar as possible.

37. An evaluating and reporting system should include:

    a. Well-planned teacher-pupil conferences.

    b. Well-planned parent-teacher conferences.

    c. Informal conferences.

    d. Follow-up or case conferences.

    e. Letters, notes or other written communication to parents or pupils.

    f. Report cards.

    g. Home visits.

h. Adequate individual records.

38. Evaluations of individual student progress should be reported in such a way that comparisons can be made against his ability, his objectives in the program, his aspirations and how others his age and ability do as a group.